





## NEWS: EUROPE

# France aims to apply oil to Nato's squeaky wheels

By Bruce Clark in Brussels

France yesterday hailed its closer relationship with Nato as an attempt to give a boost to solving a series of complex issues with which alliance members have wrestled unsuccessfully for two years.

In particular, it will press for early resolution of the debate about a new model for EU-European military co-operation, in which the US would provide logistics and transport and the Europeans most or all of the troops. Mr Hervé de Charette, the French defence minister, said he regretted the two-year deadlock over this issue but was hopeful that consensus could be reached soon.

President Bill Clinton and the other 15 leaders of Nato governments agreed in January 1994 to develop as rapidly as possible a new model for co-operation, known as CJTF (combined joint task forces). But discussions have become bogged down over how much say the US would have over military missions that were mainly staffed by Europeans, and whether the US provision of logistical help would be automatic or subject to frequent review by Washington.

The US and most of its European allies also disagree on the

UN officials said yesterday they were seriously worried about lack of co-ordination between the international and regional bodies which are supposed to implement the Bosnian peace agreement signed last month in Dayton, Ohio, writes Laura Silber in Belgrade.

Mr Kofi Annan, senior UN envoy to ex-Yugoslavia, began a round of discussions yesterday with envoys of the five-nation contact group with the aim of dividing up the tasks. This effort will move into high gear on Friday with a meeting organised by the British government in London which will allocate tasks between the UN and other civilian agencies.

The UN will have no military role in Bosnia once the 60,000-strong Nato implementation force (Ifor) has been deployed. But the UN High Commissioner for Refugees will be responsible for trying to resettle as many as possible of the country's 2m displaced persons before the elections envisaged for next year can begin.

headquarters of any CJTF. Washington insists such missions be based in an existing Nato command, while France favours greater flexibility.

Another question on which Paris wants faster progress is the future status of the Western European Union, an embryonic defence club to which 10 Nato members belong. France is keen to combine preservation of the transatlantic link - about which it is seriously worried - with the fulfilment of its long-standing dream of a fully fledged "defence identity" for Europe.

Hitherto, Britain has been wary of French enthusiasm for

the latter project. But yesterday, British and French officials stressed the compatibility of their ideas on the subject. Both want to keep the US presence in Europe, and neither wants any new supranational structure to take over defence co-operation within Europe.

Mr de Charette made clear yesterday that France would use its more prominent seat at the alliance table to press for the formalisation of Nato's troubled relationship with Russia into a full-blown charter giving Moscow a place in Europe's security order.

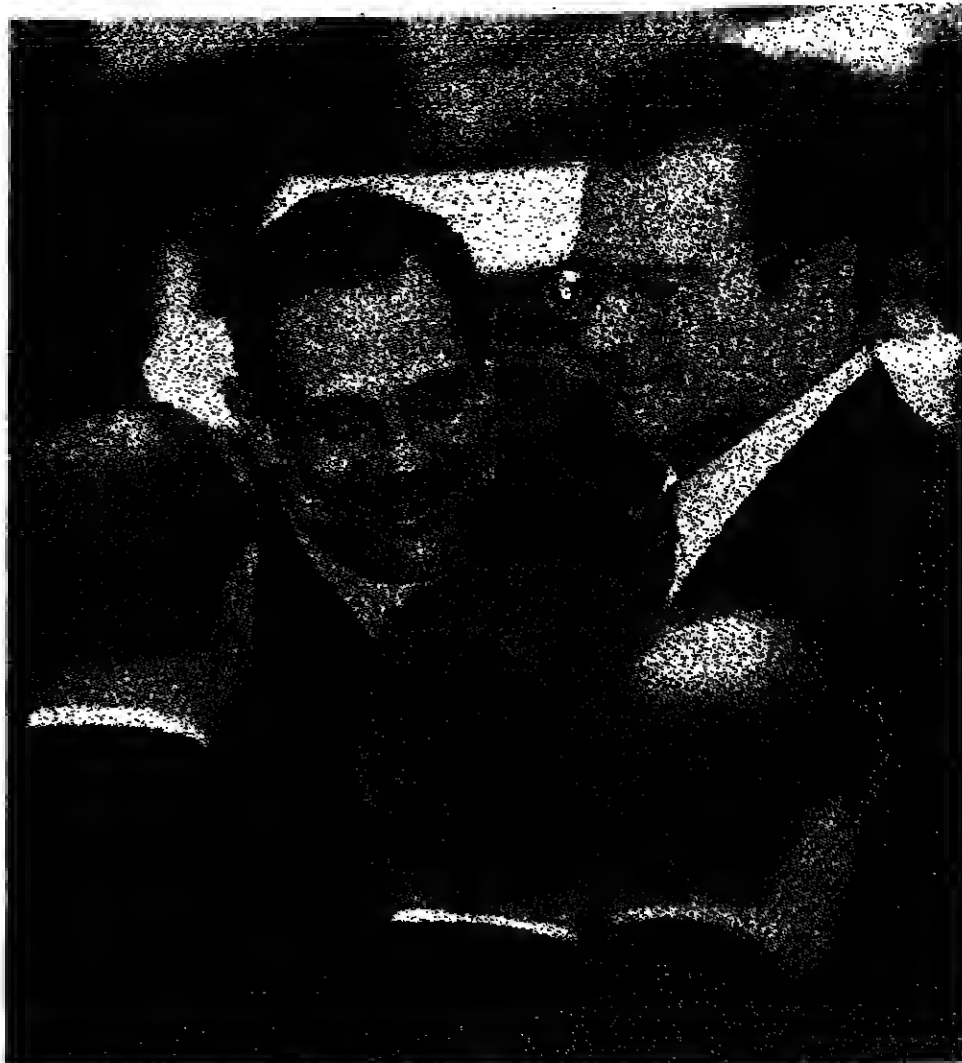
Paris is also committed, along with its allies, to the

principle of enlarging Nato, but it seemed more than happy yesterday to endorse the latest alliance pronouncements on the issue, which aimed to "play for time" and avoid naming countries or timetables for at least another year.

UK officials said Mr Malcolm Rifkind, Britain's foreign secretary, called for "sensitive handling" of the enlargement issue at a time when Russia faces two important elections. Mr Rifkind stressed the need for closer Nato co-operation with Ukraine, a country that is unlikely to be in the first wave of any Nato enlargement but is resisting Russian pressure for closer military links.

Instead of hastening towards enlargement, the Nato ministers agreed to deepen their existing co-operation with the ex-communist world, to adapt the alliance's military structure to incorporate possible new members, and to begin "individual dialogues" with would-be members.

These limited gestures are expected to reassure Russia, whose foreign minister, Mr Andrei Kozyrev, arrives in Brussels today. However, they may prompt charges in central Europe that the alliance is merely looking for excuses to shelve any firm decisions.



Spain's foreign minister, Mr Javier Solana (centre), is congratulated at Nato yesterday on his appointment as secretary general

## Dini warns against speeding up Emu

By Andrew Hill in Milan

Mr Lamberto Dini, the Italian prime minister, warned yesterday that moves to accelerate European monetary union could leave out member states and reduce Emu's economic and political value.

In a speech to the Italian parliament, he sent a strong message to Italy's EU partners that the meeting to decide which countries can go forward to monetary union in 1999 should not be held before spring 1998.

This would give Italy, among others, time to demonstrate its suitability for Emu with full accounts for 1997.

Mr Dini said yesterday that parliament would have to make the "considerable, but not impossible" commitment to accelerate plans to reduce its own budget deficit in order to become eligible for monetary union.

He also addressed the continuing uncertainty over whether early elections will be held during Italy's six-month presidency of the European Union, which begins on January 1.

The government which runs the presidency must have clear ideas and receive a clear mandate, he told Italian deputies at the opening of a three-day parliamentary debate on the government's European programme.

He was referring to the motion on the presidency, which should be put to a vote tomorrow, but the passage seemed certain to be interpreted as a call to extend his own term in office.

Mr Massimo D'Alema, leader of the former communist PDS, has called on parties to make up their minds about the fate of the technocratic government before next week's summit of EU leaders in Madrid.

On the right, Mr Silvio Berlusconi's Forza Italia movement, and the National Alliance (AN) of Gianfranco Fini, are calling for elections as early as February.

But Mr Romano Prodi, who heads the centre-left grouping of parties, including the PDS, said yesterday that elections should be held towards the end of May, a move which would allow the government to stay in office as a caretaker administration until the end of June.

"That would give a useful message about the seriousness and clarity [of the presidency] to our European partners," Mr Prodi said.

Mr Dini is set to stand down at the end of this year, but parliament could renew his mandate for a limited period.

He and President Oscar Luigi Scalfaro have already said they would prefer elections not to be held during the EU presidency, which will launch the intergovernmental conference on revision of the Maastricht treaty at a special summit in Turin in March.

Mr Dini will meet Mr John Major, his British counterpart, in Florence today to discuss the forthcoming presidency. Italy is particularly concerned about being left out of the process of European integration.

The Italian premier yesterday called for "extreme caution" about German proposals that a hard core of countries which meet Maastricht criteria on monetary union should take decisions on the move to a single currency.

In an interview published yesterday in the Italian daily La Repubblica, Mr Major indicated he shared Italian worries. He said he welcomed Franco-German co-operation at the heart of Europe "as long as it doesn't turn into an exclusive club which keeps out the others".

## EU divisions surface over Reflection Group report

By Lionel Barber in Brussels

The European Union yesterday set in motion a protracted debate over its future with the publication of a long-awaited report on institutional reform to pave the way for enlargement.

Divisions quickly surfaced among members of the Reflection Group of government-appointed experts who are charged with preparing next year's intergovernmental conference to review the Maastricht treaty, despite the relatively modest recommendations of their report.

Britain is leading resistance to broad institutional reform, but is isolated on the principle of extending majority voting, awarding limited

new powers to the European Parliament, and extending EU-wide powers to asylum, visa and external border controls, as well as the need to preserve the UK's opt-out from the Social Chapter.

Group members were confidently predicting yesterday that British intransigence would force the IGC to stretch into mid-1997. Several governments believe that the best chance of flexibility lies with a change of government after the UK election which must be held at the latest by April 1997.

However, Mr David Davis, UK foreign office minister, expressed satisfaction that the report had taken note of British positions in favour of competitiveness, restraint in new

Euro-legislation, national sensitivities in areas such as immigration, and the need to stay in touch with European public opinion. "We are looking at a relatively modest outcome at the end of the IGC," he said.

But Mr Elmar Brok, a Christian Democrat MEP who is close to Chancellor Helmut Kohl, claimed that the European Parliament's case for more majority voting received a "very broad majority". He described British opposition as a case of "fog in the Channel. Continuity is isolated".

Mr Carlos Westendorp, the senior Spanish diplomat who chaired the Reflection Group, said it was not necessary to revise the Maastricht treaty wholesale, but the IGC needed to agree sufficient changes to cope

with today's challenges and tomorrow's task of enlargement.

The group's report does not tackle issues such as reform of the common agricultural policy or regional aid to cope with enlargement, and the group concluded unanimously that Maastricht's provisions for launching a single European currency in 1999 should not be reopened.

Mr Westendorp listed three broad areas for discussion at the IGC.

● Making Europe more relevant to its citizens. This means responding to concerns about employment, the environment and internal security, such as protection against drug trafficking, money laundering, organised crime, and illicit immigration. The report suggests promoting

European values, with majority sentiment in favour of proclamations on sexual equality, racism and xenophobia, and a procedure for their enforcement. Some backed the creation of an EU "Peace Corps" for dispatching and dispensing humanitarian aid.

● Improving the efficiency of EU institutions. The majority favoured the principle of extending majority voting, but an annex reveals that individual member states are reserved if this means higher costs, say, in social or environmental policies - a reference to southern countries including Spain.

The report does not resolve the vexed question of changing voting weights to take greater account of

population, a demand from Britain, France, Germany and Spain. But one country (believed to be France) suggests it will not support an extension of majority voting unless it obtains satisfaction on voting weights.

● On foreign policy, the reports calls for a study of how to develop new, more flexible approaches which will not prevent those who want to take common action from doing so.

It also suggests the creation of a new analysis and planning unit, and calls for ways to give the EU a higher profile, possibly with a high representative along the lines of Mr Carl Bildt as special EU envoy to former Yugoslavia. But some states fear that this could undercut the European Commission.



Mr Carlos Westendorp: identified areas of dissent

## Westendorp completes the near impossible

By Lionel Barber in Brussels

Mr Carlos Westendorp rarely lets his professional mask slip. But even the Spanish diplomat's sunny features betrayed relief yesterday after completing one of the most difficult exercises in his career: chairing and authoring the report of the high-level group on EU constitutional reform.

His was a near impossible mission. Although a dry-run ahead of next year's EU intergovernmental conference, it lacked the cut-and-thrust of a negotiation. The group itself was a motley collection of gov-

ernment-appointed experts, junior ministers, and representatives of the European Commission and Parliament.

Mr Westendorp had to cope with British obstreperousness, French reticence, German idealism, and what he calls the occasional outburst of "fundamentalism" from unnamed group members whose enthusiasm for supra-national decision-making remains untamed.

He lacked the focus of the Delors group on monetary union or the Dooeg group on the single European market which was working to a clearly defined goal. His task

was more nebulous: to assess the effectiveness of the Maastricht treaty and identify options for change at next year's IGC, with one eye on the prospective enlargement to eastern Europe.

Having spent 25 years on the European diplomatic stage, Mr Westendorp, 58, was well placed to chair the so-called Reflection Group. A former Spanish ambassador to the EU who serves as state secretary for European affairs, he is a smooth, artful, if at times sharp-tongued, defender of his country's interests.

The traditional diplomatic method in the EU seeks consensus at all costs. But Mr Westendorp realised that this approach would produce a report so devoid of content that it would be meaningless; so he deliberately sought to identify areas of dissent, without revealing country's names.

With the exception of the British, he found teasing out individual countries' positions a challenge. The Nordic newcomers were timid; others were wary about another "great leap forward" in integration falling foul of the European public.

But on issues such as qual-

ified majority voting, co-operation on immigration, asylum, external border controls, and more powers for the European Parliament the lines are now drawn, often with Britain isolated.

It remains less clear whether Mr Westendorp has succeeded in sketching an institutional framework to prepare for an enlarged Union of 27-plus members, with boundaries stretching from Malta in the south to Estonia and Romania in the east.

More likely, he has used the inevitability of enlargement to hindgeon participants into

agreeing that some institutional reform must take place.

The Reflection Group may be Mr Westendorp's swan-song to Europe. A Socialist, he is unlikely to survive in his post if Mr Felipe Gonzalez, his prime minister, loses next spring's election. A fluent English speaker, he is most likely to seek an ambassadorial post in the US.

But there is a chance that, with the departure of Mr Javier Solana to the post of Nato secretary general, he may be elevated to replace the Spanish foreign minister. He would not say No.

## Ministers spurn three out of four measures and halve spending

### Commission social policy setback

By Caroline Southey in Brussels

The European Commission's drive to promote social policy through action programmes suffered a severe setback yesterday when employment ministers agreed to slash proposed funds to boost equal opportunity measures in the EU.

Efforts by Mr Padraig Flynn, commissioner for social affairs, to put in place a system under which member states could exchange information on best practice in four areas of social policy were left in disarray after ministers agreed to back only one - on equal opportunities - then voted to cut the proposed ECU60m (£78m) funding package by half.

Mr Flynn described the deci-

sion as "a very negative signal as far as the EU social programmes were concerned". Mr Flynn faces stiff opposition, particularly from Germany, which has challenged the Commission's right to make policy recommendations in the four areas - equal opportunities, action on employment, support for the elderly and health and safety at work.

Although ministers agreed to the programme covering equal opportunities, they failed to offer opinions on health and safety at work and action on jobs. The Commission has virtually abandoned efforts to secure agreement on a programme covering support for the elderly.

Germany, which agreed to back the programme on equal

opportunities on condition the funds were cut to ECU30m over five years, is nevertheless expected to continue to block the other three programmes on the grounds that the EU has no competence to deal with the issues.

The Commission has relied heavily on using social action programmes to pursue the bulk of EU social policy as laws covering minimum standards have been put in place and legislative initiatives have been wound down.

The Commission has given notice it will introduce no new social policy legislation next year, although it is likely to propose directives on issues now being discussed by the social partners, such as burden of proof in sex discrimination

cases, parental leave and part-time work.

"The Commission is using an enabling clause in the treaty to pursue over 90 per cent of social policy which it doesn't have a specific legal base to act on", an EU official said. "That ability is now under threat".

The four action programmes backed by EU funds are designed to encourage member states to exchange information on best practice, launch information campaigns and set up pilot projects.

Mr Flynn said he "deeply regretted" the decision to cut the Commission's proposed funding level by half, adding that it set "a serious negative message" to women across Europe.

## Moscow bomb raises poll fears

By John Thornhill in Moscow

A powerful explosion wrecked an office inside the Russian parliament building yesterday, raising concerns about political violence in this month's election campaign.

The cause of the explosion was unknown last night, but it was suspected to have been an attempt to assassinate Mr Nikolai Lysenko, an extreme right-wing deputy who heads the National Republican Party of Russia. Mr Lysenko left his office only minutes before the blast which blew a hole in a wall and shattered windows but caused no serious injuries.

On Monday, a car bomb exploded in Grozny, capital of Chechnya, killing at least 11

people. Chechen separatists have vowed to disrupt the election of a new regional leader, scheduled the same day as Russia's parliamentary vote on December 17.

Chechen separatists have threatened to launch terrorist attacks on Moscow, but no evidence linked them with yesterday's explosion. Mr Lysenko, who combines a hatred of the US with a loathing of communism, is a controversial figure.

Law and order has been seized on by parties contesting the parliamentary elections. General Alexander Lebed, a leader of the nationalist Congress of Russian Communities movement, has vowed to combat the "huge criminal force in Russia".

In an interview published yesterday in the Italian daily La Repubblica, Mr Major indicated he shared Italian worries. He said he welcomed Franco-German co-operation at the heart of Europe "as long as it doesn't turn into an exclusive club which keeps out the others".

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## EUROPEAN NEWS DIGEST

## Brussels talks on Iberia threat

Talks between the European Commission and Iberia, the cash-strapped Spanish state airline, continued yesterday, in spite of a declaration by the Spanish government that it intended to pay Pta130bn (\$1.1bn) of state aid to the airline on December 23, whether agreement on the legality of the aid was reached or not.

Such a move would almost certainly lead to Spain being taken to court for breach of European Union rules on state aid. The rules are that with such an investment a government should be like a private investor, operating under the same conditions, and with prospects of profits.

However, the Spanish statement is widely believed to have been a political gesture for domestic consumption ahead of a likely agreement in the next two weeks on how much aid can be paid. Brussels has said all along that Pta130bn is out of the question, while the Spanish authorities have argued that this is the amount required to bring the company - already a recipient of earlier aid - back to viability. Brussels is willing to consider a smaller amount - less than Pta100bn - if it is within the rules.

Spain's industry minister, Mr Juan Manuel Eguiguren, said in a radio interview yesterday: "If there is no agreement I will not let Iberia's position deteriorate, damaging the interests of the company and of Spain." Mr Eguiguren was speaking after the airline's board announced an extraordinary general meeting for December 23 to approve the Pta130bn injection of public funds. *Emma Tucker, Brussels, and Tom Burns, Madrid*

## French fury on bomb suspect

France has criticised Sweden over its decision not to extradite Mr Abdelkrim Denshe, an Algerian suspected of organising a bombing last July on the Paris metro which killed seven people and injured 86. Swedish officials said yesterday.

The French justice minister, Mr Jacques Toubon, said in a letter addressed to Swedish justice minister Laila Freivalds that the issue could harm relations between the two countries. "I can only express my regret that the Supreme Court has published an unfavourable decision which binds your government and which could raise doubts over the quality of relations between our two countries in the fight against terrorism," said the letter to the Swedes obtained by Reuters.

A Swedish justice ministry spokesman said: "The decision was made by the highest court, the Swedish Supreme Court, which means there is no possibility for the government to change this decision." *Reuters, Stockholm*

## Bonn backs Turkey-EU pact

The German government yesterday gave strong backing to the planned customs union between the European Union and Turkey but reservations about Turkey's human rights record were apparent among opposition parties.

During a two-hour discussion in Bonn with Ms Tansu Ciller, the Turkish prime minister, Mr Helmut Kohl, Germany's chancellor, said his centre-right coalition government "emphatically supported" the customs union, which will be subject to a vote in the European Parliament on December 13. Mr Cem Ozdemir, a German Green MP of Turkish extraction, said Turkey's people should not be punished for their government's policies. But other Green MPs said the EU parliament should only approve the customs union once improvement in Turkey's human rights record was clear. The former communist Party of Democratic Socialism said there should be no customs union without a political solution of the Kurdish problem, the release of imprisoned Turkish MPs and an amnesty for political prisoners. *Peter Norman, Bonn*

## Contraceptive pill cost ruling

The European Commission has ordered Organon Laboratories, a British subsidiary of Ashra, the Dutch drugs company, to lower the price it charges in the Netherlands for the Marvelon contraceptive pill.

The pill was being sold for 12.5 per cent more in the Netherlands than in the UK in order to protect the Dutch subsidiary of Organon which was also distributing Marvelon. Dutch rules encourage pharmacists to buy foreign imports where they are cheaper than the Dutch equivalent. Brussels investigated after three complaints last year from companies in the UK and Germany who spotted that Organon was charging more for pills destined for markets outside the UK.

Organon agreed to end the practice in October last year, but details of the agreement were kept secret until now, because of adverse publicity surrounding alleged health dangers associated with Marvelon and other contraceptive pills. Marvelon is one of the world's most popular birth control pills, and in the EU is particularly popular in the Netherlands - where it has 20 per cent of the market - and the UK - where it has some 25 per cent. *Emma Tucker, Brussels*

## Power liberalisation hopes

The UK is hopeful that progress can be made in opening up the EU electricity market to greater competition at next week's council of energy ministers, according to Mr Tim Eggar, the UK energy minister.

Mr Eggar said yesterday that Spain had used its presidency to good effect to overcome resistance to plans to allow distributors in one country to be able to supply power to another EU state's electricity market.

Countries such as Italy, Germany, and Spain were now more amenable to accepting changes the UK has been seeking for several years.

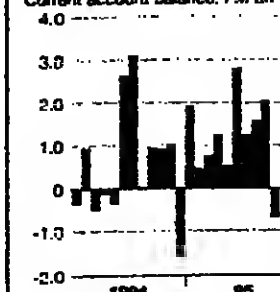
However, Mr Eggar said the strikes in France by public sector workers, including those in power generation, could jeopardise the chances of agreement. But if France opposed liberalisation plans it would find itself in an isolated position, in the UK's view. *David Lascelles, London*

## ECONOMIC WATCH

## Finland hit by weaker trade

Finland

Current account balance, FM bn



Source: Datastream

The Finnish economy is expected to grow by nearly 5 per cent this year. In the first 10 months of the year, the current account showed a FM12.1bn surplus, up from FM7.3bn in the same 1994 period. The trade surplus rose to FM33.9bn from FM30.5bn.

German M3 money supply grew at a final annualised rate of 1.7 per cent in October from the fourth quarter of last year, the Bundesbank said. This compares with a provisional rise of 1.8 per cent announced at the end of last month. In September, M3 expanded by 1.6 per cent.

Belgian registered unemployment in November fell to 14.4 per cent of the workforce from 14.7 per cent in October. Austrian unemployment remained stable last month at 4.7 per cent.



Strikers marching through central Paris yesterday to defend social and welfare benefits against a government austerity plan

## PARIS STRIKERS TRY TO DRUM HOME MESSAGE

By John Riddling and Andrew Jack in Paris

The icy front that blew in from Russia yesterday failed to cool the ardour of France's disaffected, who chanted their way through the country's main cities and turned up the heat on Mr Alain Juppé's unpopular government.

Tens of thousands took to the streets of the capital, snaking from the Place de la République to the Gare Saint Lazare to the sound of jazz-funk music, klaxons and a barrage of anti-Juppé slogans.

The grievances of the Paris marchers were as diverse as those who expressed them. "We are more important than armaments," said Armand, a 22-year-old student demanding improved funding for universities.

Around him in a snow shower marched electricity workers opposed to liberalisation of the European energy market. Air France workers opposed to privatisation and hospital staff condemning closures.

Radicals from the Bank of France and the National Archives took their places

Despite the prospect of worsening strikes and transport turmoil, next week's lavish draw ceremony for the qualifying matches of the 1998 football World Cup will take place as planned in Paris, AP reports from Zurich. An estimated 2,500 people will be involved in the draw on December 12. These include 160 VIP guests, 60 officials of football's governing body, Fifa, and 700 journalists.

Mr Joao Havelange, Fifa president, said it had been decided to keep to the scheduled date after talks in Paris with French tournament organisers and government representatives.

Behind railwaymen, the spearhead of the strikes - they are rejecting productivity measures and welfare reforms.

"We are at the front of this movement," said Bernard Dutoit, a partly rail engineer of communist persuasion. "Railmen have always been ready to fight the government," he said to some back slapping from a burly colleague. If the diversity of the protesters demonstrated the difficulty

of the task facing the government as it struggles to defuse the country's social unrest, there was also a unity of purpose among the crowds.

"We will fight until Juppé takes back his plans," declared one official of the communist-leaning CGT union, in a reference to the prime minister's controversial welfare reforms.

Mr Marc Blondel, leader of Force Ouvrière, the union leading the calls for strikes over the reforms, stayed away from the afternoon demonstration, but earlier spoke to a meeting of railway workers in central Paris.

He said he was willing to negotiate with the government once Mr Juppé withdrew his plan, but he broadened his list of grievances, saying his concerns included preservation of the public sector and improved wages. He warned against Mr Juppé's plan to "nationalise" pension funds, which would in turn weaken the unions' grip on the management of them.

The precision and scale of yesterday's protests suggest that practice is making perfect.

## Some French companies see profit in strife

By Andrew Jack in Paris

While most businesses and shops were suffering from the escalating strikes across France yesterday, some companies were managing to profit from the disruption.

More than 700 buses and 19 river boats, hired largely from private sector operators, have been at work in Paris since Monday morning under the government's plans to provide replacement services for commuters - the estimated daily bill is about FF4m (\$836,300).

Mr Philippe Letapen of Cars Rouges, which operates a fleet of double-decker buses, normally offering tours of Paris, said he had allocated two buses to operate shuttle services within the city following requests from the regional transport authority.

Paris Vision, which also runs tour buses around the French capital, said it had experienced some decline in business with tourists staying away, but the absence of suburban rail networks had helped boost demand for services to attractions out of the city centre such as EuroDisney, which claims not to have suffered as a result of the strike.

In the absence of inter-city train services, Eurotaxis and other coach operators have been doing good business across France.

Internationally, Eurotunnel, operator of the Channel tunnel rail link, said it had been absorbing traffic more than 50 per cent above previous daily levels.

As Paris's 800,000 daily pub-

lic transport users are forced to seek other ways of travelling to work, the market for motorbike and bicycle hire and sales has boomed.

Samaritaine, the department store, was yesterday taking delivery of a large number of bicycles in response to high sales.

A growing number of city dwellers have been walking long distances to work, or even taking - sometimes precariously - to roller skates. Ms Stephanie Danmergue, manager of the Foot Locker store in Paris, said: "Sales of both roller skates and walking shoes have gone up by about 10 per cent in the last week."

The use of cars has inevitably risen, and petrol consumption has gone up even more sharply as a result of traffic jams.

But Mr André Gallin, director of development for Hertz, said that after initial high demand for car rentals, many people were now avoiding Paris entirely and cancelling their bookings.

Transport operators have not been the only companies to gain from the industrial unrest, courier companies have also reported increased demand for the services.

Meanwhile, for those willing to pay FF4.70 for the Parisien tabloid newspaper yesterday, there was a hitch-hiking add - half of the front-page was given over to a "stop" sign with a blank section in which those hoping for lifts could fill in their destination in an attempt to halt cars passing slowly in the heavy traffic.

## Persson accepts calls to take helm

By Hugh Carnegie in Stockholm

Mr Göran Persson, Sweden's finance minister, last night agreed to succeed Mr Ingvar Carlsson, who steps down as Social Democratic party leader and prime minister next March.

Reversing his repeated refusal in recent weeks to stand as a candidate, Mr Persson said he had been persuaded by the importance of the task and by a unanimous appeal by the party's leadership selection committee.

"This is an important phase for the party and for Sweden," he told reporters. "We have to complete the recovery from the financial crisis and get back to a welfare policy and the right social democratic policies."

Mr Persson, 46, has been finance minister since the Social Democrats returned to power late last year. He has presided over an unprecedented programme of spending cuts and tax increases to overcome a yawning budget deficit and fast-growing state debt. The debt is now expected to stabilise this year.

The party turned to Mr Persson in an atmosphere of near desperation after Ms Mona Sahlin, the original favourite to take over from Mr Carlsson, was forced to withdraw amid scandal over her private use of government credit cards.

Mr Persson is now almost certain to be elected unchallenged at a special party congress next March.

The financial markets are likely to approve the choice of Mr Persson who has won their confidence with his determined stance on the budget, tending off strong left-wing protests against cuts he has been forced to make in Sweden's generous welfare system.

Mr Persson stands firmly in the wing of the party arguing that the welfare state must be trimmed if it is to survive.

He was said by his close advisers genuinely to have hesitated taking the prime minister's role because of the intrusions it demands on his private life. The circumstances of his election will ensure he will be able to take a firm grip on the party.

Meanwhile, Mr Persson yesterday enjoyed a public burst of applause from the international Monetary Fund for his tough response to the country's financial crisis over the past year.

A visiting IMF delegation, which allowed the Finance Ministry to publish its views, said Sweden was "beginning to reap the benefits of the government's firm response to the deep economic and financial crisis of the last several years".



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## NEWS: ASIA-PACIFIC

# Opportunity lost to cut chaebol-state ties

Prosecution elects to limit fall-out from Korea slush-fund scandal, writes John Burton

It was an opportunity to break the close and corrupt collusion between state and business. But in the end, South Korea's prosecutors decided to limit the fall-out from the slush fund scandal that has transfixed the country for almost two months.

Former President Roh Tae-woo and only seven of the more than 30 top executives implicated in the case were charged with bribery - and the businessmen are expected to receive suspended jail terms if convicted.

Such lenient treatment, a senior government spokesman admitted, was because of their importance to the national economy.

"The government had a chance to overhaul the economic system," said Mr Eugene Yun, chief economist for Schroders Securities in Seoul, "but it appears now to have missed the opportunity."

The scandal has revealed how Korea's large conglomerates, or chaebols, rose to economic power because of political favouritism, and that they have been able to maintain their dominance as officials protected them against competition.

But President Kim Young-sam appears to have shied away from the opportunity to dismantle the system and deregulate the economy. The main reason for caution is that extensive economic reforms could disrupt the country's booming industrial growth, which still largely depends on state-guided mobilisation of

resources for investments. Although the government is preparing measures to reduce the family ownership of the chaebol and improve corporate governance, they will do little to limit the central role of the chaebol in the economy. Officials are worried that a crack-down on the chaebol would slow economic growth and consequently harm the ruling party's prospects in parliamentary elections next April and the presidential election in 1997.

Indeed, Mr Kim's response to the corruption scandal has largely been one of damage control to ensure his political survival. It has tested his ability to control the country's slush fund was revealed by an opposition MP in October, it threatened to engulf the president.

There were allegations, widely believed by the Korean public, that Mr Kim's 1992 presidential election campaign had been illegally financed by Mr Roh, a political ally.

Mr Kim was already reeling from a severe defeat in local elections in June, with his popularity slumping to 30 per cent. His government was criticised for policy failures, including infrastructure disasters and an inconsistent stance on North Korea.

In addition, Mr Kim was being accused of protecting his two military-backed predecessors, Mr Roh and Mr Chun Doo-hwan, for their role in crushing the 1980 pro-democracy Kwangju uprising because their supporters form the ruling party's majority faction.

Once the scandal broke, the president tried to regain public support by criticising the unpopular chaebol and their corrupt links with officials, while ordering the prosecution and arrest of Mr Roh.

What is more important, Mr Kim, the country's first civilian president in three decades, went on the offensive by re-opening an investigation into the 1980 military coup led by Mr Chun and Mr Roh and the subsequent Kwangju massacre.

Such an investigation a few years ago would have provoked another army coup, but Mr Kim curbed the power of the military at the beginning of his term by purging officers loyal to Mr Roh and Mr Chun.

The arrest of Mr Chun last Sunday did much to restore Mr Kim's image as a political reformer determined to end the influence of the country's unsavoury military rulers.

The recent series of dramatic events leading to the imprisonment of Mr Chun has also served to distract public attention from the nagging question of whether Mr Kim benefited from Mr Roh's largesse in the 1992 election.

A statement by prosecutors yesterday that it would be difficult to determine which politicians received money from Mr Roh provides a satisfying conclusion for Mr Kim.

The scandal has been a blessing in disguise, said one government official. The president's poll ratings are improving and with it the chance that he may save his slim parliamentary majority in the April elections and avoid becoming a lame duck for the rest of his mandated one-term presidency, which ends in early 1996.

But it is still uncertain whether Mr Kim's political gamble will pay off. Although the arrests of Mr Chun and Mr Roh enjoy widespread public support, many Koreans cynically believe that Mr Kim has sacrificed the two former presidents to save himself.

Some political analysts predict that the benefits from the arrests will wear off for President Kim by the time the general elections are held. Questions about his 1992 campaign finances may also come back to haunt him.

However, others expect that Mr Kim will emerge victorious by breaking ranks with discredited ruling party conservatives and instead form an alliance with a new reform party and the minor centrist Democratic party, which helped the Roh corruption scandal.

Such a reformist bloc could win enough votes to keep control of parliament in Mr Kim's hands and bolster his chances of picking his successor as the new ruling party presidential candidate. This would also ensure Mr Kim of playing a behind-the-scenes role in the next administration.

Among the candidates believed to be favoured by Mr Kim as the next president is Mr Kim Suk-won, the former chairman of Saengyoung - a large chaebol.

## SEOUL HAS 'FAR TO GO' ON OECD ENTRY

South Korea's push to join the Organisation for Economic Co-operation and Development has so far been unaffected by the Roh Tae-woo scandal, but western officials said that much remains to be done if the country is to fulfil its ambition of membership by the end of next year, Peter Montagnon, Asia Editor, reports.

After a somewhat frosty start to the negotiations this summer, South Korea has now recognised that membership is more than just a formality and that the OECD will require serious reforms in the country, they added.

Fresh evidence of the government's could disrupt the country's booming industrial growth, which still largely depends on state-guided mobilisation of

resources for investments. Although the government is preparing measures to reduce the family ownership of the chaebol and improve corporate governance, they will do little to limit the central role of the chaebol in the economy. Officials are worried that a crack-down on the chaebol would slow economic growth and consequently harm the ruling party's prospects in parliamentary elections next April and the presidential election in 1997.

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recent talks with OECD members. Among the restrictions likely to be loosened is the so-called "market needs" test used by the government to prevent new companies, domestic and foreign, starting insurance operations in South Korea.

The government is also expected to announce the phase-out of restrictions on reinsurance business and cross-border insurance.

In addition, South Korean officials said they planned a further increase next year in the 15 per cent ceiling for foreign purchases of South Korean equities, raising it to 18 or 20 per cent. This should help offset the negative impact on the stock market of the disclosure of alleged illicit payments by leading companies to former president Roh Tae-woo as well as bringing the country closer to meeting one of

the conditions of OECD membership. While some OECD countries are focusing on South Korean labour relations amid concern over the government's tough treatment of unofficial trade unions, the main elements of contention remain financial market reform and liberalisation of long-term capital movements.

Substantive discussion on these two issues is not due to begin until next February or March. Only then will it be possible to tell whether the administration of President Kim Young-sam is willing to relax its grip on these key areas of the economy.

South Korea's negotiations will inevitably be compared with those of the newly-joined Czech Republic. That process set a tough standard for South Korea to meet, the officials said.

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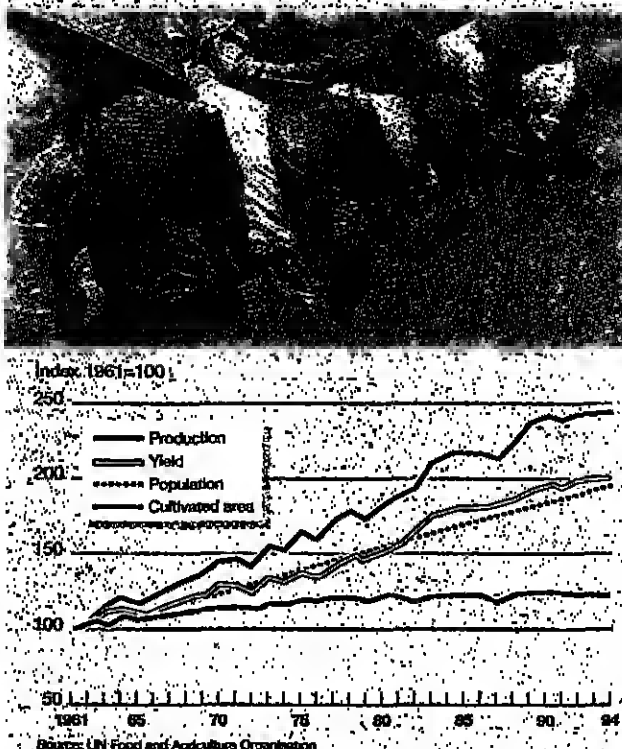
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Rice and the Asian mouths it feeds



increasing exponentially as urban populations grow because people in cities consume far more water than those from rural areas. This leaves less water for rice production yet a growing demand for rice.

Popularly known as "super-rice", food specialists around

the region are closely observing the progress of ITRI's latest biotechnological experiments.

According to ITRI scientists, who attempt several hundred cross-breeds every year, the earliest the new strain can be developed by the turn of the century. Moreover, another

five years would be needed to spread its cultivation.

"The prototype we are working on would increase irrigated rice yields by 50 per cent to around 10 tonnes a hectare," said Dr Kim. "It is a most difficult job to make the strain disease-resistant. We're genuinely racing against the clock."

Rice experts at ITRI and around the region have rebutted suggestions by various economists that the doubling of rice prices would solve the problem by making rice cultivation more profitable for marginal producers.

The scarcity of land and water would prevent this from happening, they say. In the meantime, as witnessed most recently in the Philippines when rice prices doubled, social unrest would increase.

"The only solution to this problem is to improve the yields of irrigated rice and to improve the efficiency of rice produced under rain-fed conditions," said Dr Mahabub Hossain, an economist at ITRI.

"Relying on the theory that higher prices would lead to higher production is a pipe dream," he said.

"Farmers have already reached that ceiling."

Edward Luce

## Burma's economic mini-boom helps junta stay in power

Daw Aye Win, a great-grandmother at 78, remembers when, half a century ago, Burma was the world's largest exporter of rice and as the daughter of a miller, she met grain traders from all over Britain's empire in Asia.

"Calcutta, Hong Kong, Singapore, Shanghai sometimes," she recalls. "We fed them all." Decades of socialist mismanagement and despotism ended Burma's hold on the Asian rice market. The government told farmers what to plant, when to plant it and then bought the entire crop at starvation prices. Production suffered and for a number of years the country struggled to feed itself.

But Burmese rice is back. The country is on track to export as much as 1.5m tonnes of rice in the 1995-96 season, up from 1m tonnes in 1994-95, and is aiming to reach its 1934 record of 3.4m tonnes in two years' time.

While that is still modest by world standards (neighbouring Thailand exports about 5m tonnes of rice a year), the International Rice Research Institute believes Burma could supply a significant portion of the extra 10m tonnes of rice annually the world will need in 10 years' time.

Rice is the country's most important foreign exchange earner, and since the government monopolises export of the grain, earnings from the rice

trade fund the purchase of imports such as fuel, construction materials and machinery needed to upgrade the country's creaky infrastructure. The sustainability of Burma's current economic mini-boom largely depends on the continued growth of rice exports.

Rice carries enormous political significance as well. Earnings from the rice trade allow the military junta to keep its 300,000-strong army well equipped: defence accounts for 30 per cent of all government spending and a significant portion of hard currency is spent buying arms. Farmers, who make up about 65 per cent of the population and once formed the backbone of support for the opposition National League for Democracy, might be won over if prices are high and life is getting better.

The country has been able to boost its rice production by following a formula that is applied across many sectors of the economy: free-market incentives combined with a generous amount of coercion.

Mr Than Lone, a farmer with seven acres in the village of Higen, explains that last year the military ordered every family in his area, even those without land, to contribute one person for two months to help build an irrigation system.

"There was no choice. They say it's voluntary but it's not,"

he says. Although he is opposed in principle, Mr Than Lone is not complaining. As a result of projects such as these, last year Burma increased the amount of irrigated land by 1m acres; the new irrigation in his area allows him to plant twice a year. The government still buys 25 per cent of his crop at half the market price but he can sell the rest on the open market.

"We are not doing so badly," he says. His family has bought a television, which they run on a car battery because his village still lacks electricity. "Maybe next year we will buy a motor car."

Others are not at all happy. Because the government buys a fixed amount per acre in a specific region rather than a percentage of output, farmers can end up selling much of their production at below market prices if their yields are low. Local military officials, who must meet procurement quotas, force farmers to sow infertile land or second crops where there is not enough water.

"The uniformed men ordered me to grow here even though I am a farmer and I knew the land was not very fertile. After giving the government their 12 baskets I only had about 12 baskets left," complains one farmer in Syriam, just across the Bago River from Rangoon.

Government officials say they understand the problem in Syriam and plan to turn much of the area into an industrial park.

Though this system increased the amount of area sown last year by 600,000 acres and the number of acres subject to multiple cropping by nearly 20 per cent, some agricultural economists say the government's forced procurement of rice, combined with the monopoly on exports, is hurting output.

Because the system reduces profitability and therefore denies farmers access to capital that would help them increase yield, the World Bank estimates Burma is losing about 1.9m tonnes, more than 10 per cent of present output.

Outside of Pegu, overlooking his family's 20 acres of land, Mr Sein Win understands this quite well.

"Things are better, a lot better," he says. His eldest daughter is set to enter university, he has started a small garden producing flowers and watermelons and he claims he has no time for politics. But his rice output has reached its limit. To expand he needs more machinery, more fertiliser, more working capital.

"I could get this if the government gave me credit or stopped taking my rice away."

Ted Bardacke

## ASIA-PACIFIC NEWS DIGEST

## Ozawa may bid to lead party

Mr Ichiro Ozawa, the politician who triggered the end of one-party politics in Japan two years ago, was yesterday considering a comeback. Mr Ozawa, an advocate of a more open economy under clearer political leadership, has emerged as a potential candidate to lead the opposition centre-right New Frontier party.

Now second in command of the NFP, he received the support of 55 members of parliament for the party's first leadership election since its formation a year ago. At least three other possible candidates are waiting in the wings and votes will be counted at the end of this month.

Until yesterday, Mr Ozawa was thought unlikely to seek leadership, preferring to steer policy from behind the scenes as he did in two coalition governments in the 10 months to mid-1994, the Liberal Democratic party's first experience in opposition for nearly four decades. Mr Ozawa, once an LDP powerbroker, precipitated his former party's temporary fall from power by leading a defection. That formed the core of the present opposition group, which has been struggling since to set a more open style of democracy, closer to voters' aspirations. His book, *Blueprint for a New Japan*, espouses radical economic and political reform to give Japan international influence more commensurate with its economic weight. Mr Ozawa is still undecided on whether to stand. He will wait to see if more support develops before making up his mind, NFP officials said.

William Dawkins, Tokyo

## Sri Lankan flag over Jaffna

Sri Lanka's armed forces raised the national flag over the captured Tamil Tiger stronghold of Jaffna yesterday, but the rebel guerrillas announced a recruitment drive, signalling the war was not over. The raising of the flag by Mr Anuruddha Ratwatte, deputy defence minister, symbolically ended nearly a decade of rule over the northern town by the Liberation Tigers of Tamil Eelam. In a ceremony broadcast over state radio and accompanied by 30 minutes of martial music, armed services chiefs and the town's top administrator raised emblems representing the northern province, the three armed services and the police.

The rebel Voice of Tigers radio urged people to enlist in its forces to stop the army "before it is too late". It urged Tamils worldwide to join the rebel movement.

Reuter, Colombo

## Korean accord on Tumen River

Five countries, including both North and South Korea, will today establish an intergovernmental commission to promote economic development in the Tumen River basin in north-east Asia. The region of some 150m people has long been seen as offering growth possibilities because of its access to Siberian resources and nearness to the large markets of Japan and South Korea.

Formed under the aegis of the United Nations Development Programme, the commission will be a forum for cross-border consultation on infrastructure, especially transport, and on ways to speed trade through harmonising customs regulations. Other commission members are China, Russia and Mongolia.

Peter Montagnon, Asia Editor

## New Asian newspaper starts

Asia Times, the region's newest daily business newspaper, is due to hit the streets of Hong Kong, Singapore and Bangkok today. Mr Sonthi Limthongkul, its publisher, says he is willing to put up to \$60m (\$38.4m) of his own money into the venture. Mr Sonthi, 48, a Thai of Chinese extraction who heads the Manager publishing group in Thailand, publishes newspapers in Bangkok as well as Asia Inc, a monthly business magazine, in Hong Kong. His company has become one of the largest contract printers and trade press publishers in Asia, and he has interests in satellite television and telecommunications.

"What I am trying to do with this newspaper is reflect an Asian point of view. There is more to a newspaper than just facts; there is background and understanding of the region," Mr Sonthi says. Mr John Shidlofsky, director of the Asian Centre for the Freedom Forum, a US media foundation, said: "It is going to be a hard sell. There has been a proliferation of business titles in east Asia."

Foreign Staff

## Philippine inflation stays high

Philippine inflation remained in double digits for the third consecutive month in November, prompting fears it might become a long-term problem. At 11 per cent last month, the headline rate was unchanged from October but 3.6 points higher than the rate recorded in November 1994. Government economists yesterday blamed the high rate on continuing rice shortages and other commodity bottlenecks which have "temporarily" boosted prices.

Edward Luce, Manila

## First Nepalese CO for Gurkhas

For the first time in its 180-year history, Britain's battalion of Gurkha soldiers is to be led by one of its own, a Nepalese officer. Hardy Gurkha soldiers, recruited from Nepal, have long served the British forces, but always under a British hand. Today Lt Col Bishay Kumar Rawat, in the Gurkhas since 1972, takes command of the 1st Battalion the Royal Gurkha Rifles in Hong Kong.

Reuter, Hong Kong

IN 1995, HOW DID AMERICAN AIRLINES, HEWLETT-PACKARD, HITACHI, INTEL, MADGE NETWORKS, UPS AND WHIRLPOOL, TO NAME BUT A FEW, ACHIEVE COMPETITIVE ADVANTAGE IN EUROPE?

MORE IMPORTANTLY, HOW CAN YOU ENSURE THE SAME SUCCESS FOR YOUR COMPANY IN 1996?



Foreign ministers meet deadline for accord on enlargement compensation to US, Canada and Australia

# EU pact heads off threat of trade action

By Lionel Barber in Brussels

The European Union has reached a political accord on compensation to its main trading partners - the US, Canada and Australia - to cover the accession of Austria, Finland and Sweden to the EU last January.

The deal appears to head off a threat by the US and Canada to file a complaint with the World Trade Organisation in the absence of an adequate compensation package by the

end of the year. Under WTO rules, trading partners are entitled to compensation for any increase in tariffs as a result of the expansion of a customs union such as the EU.

Agreement was reached during a meeting of EU foreign ministers in Brussels on Monday night. It covers products including semiconductors, chemicals, rice, pet food, cherries and seafood.

The package is subject to ratification by the French parliament which must examine the

compensation text in its entirety, said the Commission. The US and EU have been haggling over compensation terms for almost a year, with Washington arguing that it has lost about \$1.7bn in trade as a result of the Alpine and Scandinavian enlargement.

The deal will serve as a basis for packages with other EU trading partners, including New Zealand, Thailand, Chile and Argentina.

Three EU member states - Italy, Spain and Greece -

objected to the concessions given to the US on rice and almonds.

Contrary to some expectations, the southern bloc failed to extract an explicit pledge of aid to offset loss of EU market share, particularly in farm products.

Instead, ministers agreed a set of declarations which provides possible remedies when specific sectors claim injury as a result of the compensation package.

A separate deal on grain and

rice provides for review and consultation on the implementation of the EU's reference price system used for all grains.

During the first six months of 1996, the EU will change the reference price used for brown rice imports to reduce tariffs. It will also develop a "cumulative recovery system" to track the tariffs charged on rice and repay any overcharging.

Ministers agreed changes to the barley import structure, while the corn and wheat rules

will stay under review. The agreement also provides for bilateral talks on wheat grain imports by the US.

On semiconductors, the EU has pledged to accelerate tariff cuts agreed in the Uruguay Round of the General Agreement on Tariffs and Trade.

Tariffs which were due to be reduced from 14 to 7 per cent by 1999 will now be cut by 1996. Other tariffs due to be phased out over the same period will also be accelerated to 1996.

## WORLD TRADE NEWS DIGEST

## Miti tightens export permits

Japan is planning to introduce tighter export controls on military useful equipment. The Ministry of International Trade and Industry is finalising a plan to oblige companies to seek export permits for goods that could be used for making nuclear, chemical or biological weapons.

The plan, to be published at the end of the year and take effect next October, aims to eliminate loopholes in existing internationally agreed curbs on defence sales, such as the missile technology control regime. Some machine tools, centrifuges and semiconductors fall into this category.

Under the new system, already in place in several countries, the government would have the right to tell companies when it thinks their products might have military applications, even if they are not listed in international accords against arms sales. Exports of such products would need government permission. This would apply to sales to all foreign countries, though there will be lighter treatment for countries seen by the Japanese government to be honouring the nuclear non-proliferation treaty.

William Dainkins, Tokyo

## UK-Japan joint centre plan

An Anglo-Japanese joint venture is to build a \$155m import promotion centre in Kitakyushu in Japan as part of the country's attempts to open its markets to foreign competition.

The Asia-Pacific Import Mart, built on eight floors, will provide space for exhibitions selling areas for companies seeking to introduce foreign products to Japanese consumers. The development is situated in the city's foreign access zone, north of Kokura station, where other projects include an exhibition centre, a separate conference centre and other buildings designed to encourage foreign trade.

Bovis, the construction arm of P&O group of the UK and member of the consortium building the Asia Pacific Import Mart, said that it was expected to be one of a series of developments in Japan aimed at responding to international demands to open up the domestic market to foreign competition.

Kitakyushu had been selected as a foreign access zone because of its deep water container port and large local market. The development is being built for the Kitakyushu Import Promotion Centre, a semi-private stock holding company which has been established to promote the foreign access zone.

Andrew Taylor, London

US aircraft control systems maker Hamilton-Standard, a unit of United Technologies and Nauka of Russia, have begun production of environmental control systems (ECS) for new Tupolev aircraft. The joint venture is developing control systems, which also include systems for monitoring engine performance, for the new generation 214-seat Tupolev-204 and 102-seat Tupolev-324.

Reuter, Moscow

Siemens of Germany has reached a DM125m (\$87m) framework agreement to install 500,000 digital phone lines in Moscow by 1998. The client is MGTS, operator of the Moscow city telephone network. About 3.5m analogue lines are to be replaced by digital technology over the next few years. Siemens will install the first 50,000 lines next year. Its market share in Russia is about 20 per cent.

Reuter, Bonn

German tyre maker Continental has signed a co-operation deal with Orben Perakasa of Indonesia to manufacture tyres under licence for the Indonesian market. Orben has a capacity of 1.1m tyres a year which it plans to double in the near future.

Reuter, Bonn

## Asean scheme 'would discriminate on imports'

By Guy de Jonquieres

The Asian free trade area (Afta), launched this year by six of south-east Asia's fastest-growing economies, threatens to discriminate against imports from industrialised countries and to impede wider economic integration in the region, according to a study.

The US-based International Food Policy Research Institute said Afta, as currently envisaged, would generate some improvements in the economic performance of member countries. However the benefits would be smaller and more uneven than if the planned liberalisation were extended to the rest of the world on a Most Favoured Nation basis.

Afta embraces the original members of the Association of South-East Asian Nations, Brunei, Indonesia, Malaysia, the Philippines, Singapore and

Thailand. Vietnam, which joined Asean in July, will participate on a limited basis.

The recent study estimated that annual intra-regional trade would rise to \$2.5bn by 2003, or 19 per cent above 1988 levels, if Asean members eliminated all barriers to each other's manufacturing and farm exports.

However, Asean's total world trade would grow by \$2.4bn, or 2.3 per cent. That was largely because preferential liberalisation would lead to lower imports from the industrialised world in every country except Singapore, which already has an open market.

Such an outcome would reduce the gains to Asean economies, because they would be denied opportunities to increase consumption of goods and services at the lowest possible resource cost.

The study said preferential trade liberalisation would be costly to administer. It could also inhibit wider acceptance of free trade and investment.

If Asean undertook liberalisation on an MFN basis, annual intra-regional trade would grow by \$1.9bn. But the grouping's total worldwide trade would increase by \$8.1bn, more than three times faster than under a preferential approach.

Multilateral liberalisation would increase real demand in Asean economies by 2.4 per cent, but it would fall by 2 per cent in Singapore. Under a preferential approach, the rise throughout Asean would average 0.5 per cent.

Regional trading arrangements among developing countries: the Asean example. By Dean A. De Rosa, International Food Policy Research Institute, 1200 17th Street NW, Washington DC 20036-3005. Tel: 202-862-5600.

Freeing trade: possible outcomes for Asean members Predicted % change relative to 1988					
Type of Liberalisation	Trade with the world	Exports to Asean	Exports to industrial countries	Imports from Asean	Imports from industrial countries
Afta plan - selected manufactures	0.89	7.28	-0.11	7.28	-0.19
Afta plan - all manufactures	1.36	11.25	-0.20	11.25	-0.33
Afta plan - all goods	2.29	19.31	-0.39	19.31	-0.41
MFN - all goods	8.47	11.52	-0.38	11.52	-0.50

Afta plan envisages zero tariffs and liberalisation of non-tariff barriers on a preferential basis. MFN Most Favoured Nation basis. The broader members of Asean are Brunei, Indonesia, Malaysia, Philippines, Singapore and Thailand.

Source: International Food Policy Research Institute

## Growth in global drugs sales at three-year high

By Daniel Green

The strong growth of drugs sales in the US has lifted the rate of growth worldwide to 8 per cent, the highest level for at least three years.

Sales through pharmacies for the world's 10 biggest markets were worth \$102.7bn in the year to September, according to figures from the specialist market research company IMS published today.

This compares with a 5 per cent increase in the first three quarters of 1994 at constant exchange rates.

Sales in the US have led the way with a rise of 10 per cent to \$40.5bn. Sales in the top seven European markets rose 6 per cent to \$39.8bn.

Only the Spanish market, the seventh biggest in the developed world, grew faster than the US. Spanish sales rose 11 per cent to \$3.5bn as the

market recovered from the effects of government spending controls which depressed the 1994 figures.

German sales rose 7 per cent to \$12.3bn following a two year period in which sales growth was depressed by government measures to control healthcare costs.

However, sales in France grew 5 per cent, to \$10.5bn, in spite of government attempts to hold down spending.

The UK continued to be one of the fastest growing markets, from a relatively low base. Sales grew 8 per cent to \$4.5bn.

Italy, which has had among the most stringent government cost control measures imposed in Europe, saw sales rise 4 per cent to \$3.5bn.

Among medical areas, the respiratory drugs sector grew the fastest, with sales up 15 per cent to \$10.3bn.

European companies are strong in the area, especially Astra of Sweden, Germany's Boehringer Ingelheim and Glaxo Wellcome of the UK.

Sales of antibiotics and anti-virus drugs were the next fastest growing, up 14 per cent to \$10.7bn.

Top companies include Roche of Switzerland, Germany's Bayer, SmithKline Beecham of the UK and Eli Lilly in the US.

The two largest sectors of the market registered slower growth rates; sales of heart disease drugs were up 4 per cent to \$18.5bn while digestive system drugs sales were up 5 per cent to \$17.5bn.

Both areas are under pressure as big-selling drugs which have been on the market for some time run out of patent protection allowing competition from cut-price unbranded versions.



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# Galileo probe nears its fiery finale

Clive Cookson on the last phase of a \$1.4bn mission to the solar system's largest planet

The most protracted and accident-prone mission in the history of unmanned space exploration faces its moment of truth tomorrow, after a 3.7 billion kilometre journey to Jupiter. Whether scientists can solve any of the mysteries of the largest planet in the solar system will depend more than anything on whether a temperamental tape recorder works tomorrow.

The Galileo spacecraft - designed in the 1970s, built in the early 1980s and launched in 1989 - is scheduled to fire its main engines to go into orbit around Jupiter.

At the same time, Galileo's atmospheric probe, which separated from the main spacecraft last July, will plunge into the turbulent Jovian atmosphere. It will then drift down by parachute through the orange-coloured clouds - measuring their temperature, pressure, electrical activity, chemical composition and wind speed - until, after an hour or so, the probe burns up in the intense heat of the lower atmosphere.

The probe (built for Nasa, the US space agency, by

Hughes Space and Communications of Los Angeles) will be the first man-made instrument to make direct observations of the weather on Jupiter, where gigantic thunderstorms and hurricanes are believed to rage with winds as fast as 500kph.

Scientists are keen to discover whether the Jovian weather is essentially similar to that on Earth, with exceedingly large, or whether it operates on different principles. They want to know why Jupiter seems to have one permanent storm - the Giant Red Spot - and why it has a banded appearance.

Even the atmosphere's composition is uncertain. According to one scenario, the probe will first encounter clouds of frozen ammonia below -100°C. As it drifts down and the temperature rises, these will be replaced by clouds of ice crystals and water droplets like those on Earth. Then it will sink into a hot mixture of helium and hydrogen under high pressure.

Professor Fred Taylor of Oxford University, whose research team has an instrument on the probe, said: "It is

a toss-up whether it gets crushed or baked first. We expect it to survive up to about 20 times the atmospheric pressure of Earth but by then the heat might have destroyed it."

The spacecraft's main radio antenna, intended to transmit its observations back to Earth, jammed irrevocably in 1991 when mission controllers at Nasa's Jet Propulsion Laboratory in California tried to

## Much depends on whether a temperamental tape recorder works tomorrow

unfurl it - the most serious of a long series of mishaps in the 20-year history of Galileo.

The craft was at first designed for a 20-month flight direct to Jupiter after a launch from the space shuttle in 1982. Various problems delayed the launch until 1989, when the Challenger disaster forced the whole project back to the drawing board.

Galileo was given a smaller motor, for safety reasons, and eventually launched from the shuttle in 1989 on a long spiral route that used the gravitational pull of several planets to accelerate it towards Jupiter.

When the scientists realised that the main antenna was useless, they came up with an alternative strategy. They decided to record the data on the craft's tape machine and then to transmit it from its small navigational antenna. And they reprogrammed Galileo's on-board computer with new "data compression software" so that the information could be stored more efficiently and transmitted with far fewer electronic "bits".

Last October, they tested the recorder - and it got stuck on rewind. Part of the tape was ruined but, amazingly, the machine itself has recovered. Nasa expects to be able to use it tomorrow to record the data transmitted from the atmospheric probe.

Then, if all goes well, the same system will be used over the next two years to store and transmit pictures and scientific observations made by Galileo

as it orbits Jupiter and inspects several of its moons.

If the large antenna had not failed, the scientists would have received about 50,000 images from Galileo. If the tape recorder works, they may still get 2,000 images. If it gives up too and they have to rely on spare capacity in the computer's electronic memory, they will be lucky to get 150 images.

One consequence of the main antenna failure is that the scientists will have to wait several weeks or even months to discover whether Galileo has made any worthwhile observations.

Even if everything fails and Nasa hears nothing more from Galileo, the mission will not be a total wash-out. It has already sent back valuable observations on the way to Jupiter, including close-up views of asteroids (rocky micro-planets orbiting the sun between Mars and Jupiter) and the only direct pictures of the Comet Shoemaker-Levy hitting Jupiter last year.



An artist's impression of the Galileo spacecraft on its approach to Jupiter

spectacular pictures of Jupiter and its moons, plus good information about the Jovian weather, will be needed to persuade the American public and politicians that their money was well spent.

Nasa's critics still mention frequently the total loss of its

\$1bn Mars Observer craft in 1993, when they argue that the agency remains too closely attached to risky mega-projects. They say it should turn to a new generation of far simpler and cheaper missions costing no more than \$150m each. Whatever happens tomorrow, however, Galileo will not be the last of the space dinosaurs. Nasa and the European space agency, Esa, are committed to a joint project, called Cassini, to explore Saturn, the planet beyond Jupiter. This is scheduled for launch in 1997 and arrival in 2004.

## INTERNATIONAL NEWS DIGEST

### Unita blow to Angola peace

Angola's fragile peace accord was dealt another blow when the Unita rebel movement said late on Monday it would no longer take part in the disarmament of its forces in response to an offensive by government troops.

Unita said it had decided to immediately stop the "quartering" of its troops in United Nations assembly areas under Angola's November 1994 peace accord forged in Lusaka.

Under the accord, quartering areas are assembly camps where Unita troops are to be disarmed and processed before they are demobilised or absorbed into the Angolan army.

Unita said it had decided to "re-evaluate the whole application process of the Lusaka protocol".

Unita accused government troops of occupying several areas of the country in violation of the accord aimed at ending nearly two decades of civil war.

Despite the peace accord, Unita and the government are deeply suspicious of each other and there have been dozens of ceasefire violations, although mostly on a limited scale.

Several thousand UN peacekeepers are helping underpin the peace in Angola, where hundreds of thousands of people were killed and millions displaced by the war which erupted on independence from Portugal in 1975.

Reuters, Luanda

### Austria enters bid for UN body

Austria is to press the United Nations to locate its planned nuclear test ban treaty organisation in Vienna, once the treaty has been finally negotiated in Geneva next year.

The new body - the Comprehensive Test Ban Treaty Organisation - will be established by the treaty and should create up to 250 UN posts.

This would roughly equate with the 239 UN posts which will be lost in Vienna as a result of the withdrawal by the US from the United Nations Industrial Development Organisation next year and consequent budget cuts of 22 per cent.

Mrs Benita Ferrero-Waldner, Austria's foreign secretary, said Vienna was as yet the only candidate to house the organisation and could offer it synergy with the International Atomic Energy Agency, a UN body with 2,200 staff, which is already based in Vienna. Unido employed more than 13,000 staff at peak and made a substantial impact on the local economy with jobs and spending power. It will drop to nearly half that number after losing a quarter of its funding through the US withdrawal.

Mrs Ferrero-Waldner also announced that Austria would set up a pay for an investment promotion office in Vienna to help Unido find private sector investors for projects and ventures in developing countries.

Jan Hamilton, Fairfax, Vienna

### Kazakhstan chooses senators

Local and regional lawmakers voted yesterday in elections for Kazakhstan's Senate, the upper house of parliament in the Central Asian country.

The former Soviet republic has been without a parliament since March, when President Nursultan Nazarbayev dissolved the old parliament, saying its election had been invalid.

Mr Nazarbayev has been ruling by decree pending new elections. Such virtual one-man rule has become the norm in the former Soviet Central Asia since the republics broke from Moscow in 1991.

Most of the 48 Senate seats were uncontested; there were 28 candidates, and only six regions registered more than one candidate.

Voting is by secret ballot at regional conferences and, in the capital of Alma Ata, at a city conference of electors.

The election was supervised by about 100 foreign observers, including the Organisation for Security and Co-operation in Europe, the European Parliament and other international organisations.

Elections to the lower house of parliament are scheduled for Saturday, the Itar-Tass news agency said.

AP, Alma Ata

### Human rights body is launched

A new international body to promote and protect human rights and safeguard the independence of judges and lawyers around the world was launched in London yesterday by the International Bar Association. President Nelson Mandela of South Africa will be the honorary president of the IBA Human Rights Institute which will be funded by IBA members through a \$20,000 (\$75,700) donation from the association.

The institute's objectives are the promotion of human rights under a just rule of law; the safeguarding of the independence of judges and lawyers; and the dissemination of information on human rights and judicial independence worldwide.

Robert Rice, London

### Inflation-hit Sudan raises wages

Mr Abdalla Hassan Ahmad, Sudan's finance minister, yesterday announced a 53 per cent increase in wages from January.

The official Sudan News Agency quoted Mr Ahmad as saying that the government was increasing wages to meet price increases and a rise in the rate of inflation that has hit people living on fixed incomes or government salaries.

The announcement came one day after the minister admitted the government had failed to bring down the annual inflation rate to 45 per cent. He said inflation had risen from 54 per cent last July to 71 per cent in October.

Another measure to alleviate the rise in the cost of living was an agreement with the Sudanese Workers' Trade Union Federation to provide funds to purchase sorghum for the workers' education, health and water services, the minister said.

Reuters, Khartoum

## Gore fails to rule out Nigeria sanctions

By Roger Matthews in Johannesburg

The US has not ruled out oil sanctions against Nigeria, Mr Al Gore, the vice-president, said yesterday after talks with President Nelson Mandela in Pretoria.

But he said any effective action would have to be multilateral. "We believe that for any action to be effective it must be multilateral, and I do not think there is any disagreement on that score between our two countries," he said.

Mr Mandela last month called on President Bill Clinton to impose oil sanctions following the execution of nine minority rights activists in Nigeria. During talks with Mr Gore yesterday, Mr Mandela again emphasised the need for more effective action against the military regime. "I gave Mr Gore a list of the problem areas, and Nigeria is one of them," Mr Mandela said.

The US effort to maintain a united front with South Africa on the Nigeria issue came during the second meeting of the bi-national commission inaugurated in Washington last year.

Although marked by agreements on issues involving technology, energy and transport, the two ministerial delegations appeared to have made little progress in resolving differences on trade and arms sales.

Mr Gore, who also held talks with Mr Thabo Mbeki, the deputy president, described the two countries as "sister nations". He said they shared a common vision and had both been forged out of similar histories marked by racial intolerance and division.

It was left to Mr Ron Brown, the US commerce secretary, to raise the problem of trademarks which, he said, needed to be tackled urgently. Mr Brown said more than 200 US companies had invested in South Africa, but warned that a bigger American presence could be in jeopardy unless the trademark issue was resolved.

He was referring particularly to the legal wrangle over the use of the name and logo of McDonald's, the US fast food chain, which last month opened its first two outlets in South Africa.

McDonald's has been taking legal action against two South African businessmen who have been trading under the McDonald's name and successfully defended their right to continue in a supreme court action in October.

In that action the judge ruled that McDonald's had not registered its name in South Africa for the past five years, and had therefore forfeited the right to use it. Under the law, as it then stood, South African companies had the right to apply for a trademark that had not been renewed for five years to be struck off the register and replace it with their own.

McDonald's has appealed. However, there was no official comment from US or South African officials on moves to resolve the conflict over Armcor, the South African arms procurement company, which in 1991 was indicted in the US for breaking its arms embargo. The US is demanding payment of a \$37m fine and the right to place inspectors in Armcor plants.

The new South African government argues that it is being punished for crimes committed by a previous regime.

## Iran scorns US plan to step up sanctions

Iran yesterday poured scorn on US plans to tighten economic pressure by imposing a secondary boycott, saying it would neither harm Tehran's petrochemical industry nor restrict access to foreign technology.

Reuters reports from Tehran. Mr Ahmad Rahnghozar, deputy oil minister and president of the state-owned National Petrochemical Company (NPC), said companies from third countries were devising ways

to avoid being penalised by Washington for trading with Iran.

"These new policies will not do much. They don't have practical applications, because during the past 17 years after the Islamic revolution we have learned how to live with this American problem," he said.

"There are many other technical and science centres in the world, especially in petrochemicals. Among the seven major

industrialised countries, we have problems with only one."

Earlier this year, Washington banned US companies from trade and investment in Iran.

Now the US Congress is due to discuss a bill to introduce sanctions against companies from third countries that export oil-related technology to Iran. The proposed curbs would ban imports into the US of such companies' products and forbid US companies from

doing business with them.

Washington introduced the curbs to retaliate against what it called Iran's sponsorship of armed opposition to the Middle East peace process and alleged wide-ranging threats to US interests worldwide. Iran rejects the charges.

Mr Rahnghozar said an average of 10 foreign companies were competing for each of the five expansion projects planned by the company as joint ventures before 2000 at a total cost of \$3.5bn (\$2.08bn).

Iran was now negotiating the first direct foreign investment in the hydrocarbons sector since 1979 with Asian and European companies, and officials were drafting laws to allow foreign participation of up to 49 per cent.

Mr Rahnghozar said US sanctions had no political or economic justification. They were linked to domestic politics.

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## NEWS: UK

# Rail regulator warns of post-sale decline

By Bromwen Maddox

Britain's rail regulator yesterday warned that failure by the government to maintain adequate rail subsidies after privatisation could set the UK rail network on a downward spiral of declining revenue and investment.

Mr John Swift said if government subsidies to the new train operating companies were to be squeezed, fares might be raised in response with a resultant sharp fall in passenger numbers. At that point taxpayers might resent continuing to pay any subsidies to a network which was being

used by ever fewer passengers and political pressure might cause government funding to be cut further, he suggested.

Mr Swift is responsible for the regulation of Railtrack, the company which owns the track and signalling operations of the former British Rail. Unlike most other utility regulators, Mr Swift has been appointed well ahead of the expected privatisation, and has been closely involved in setting the charges which train operators will pay Railtrack.

"The regulator is not there to guarantee the Conservative Party a certain amount [from the flotation of

Railtrack]...or to enable the Treasury to finance tax cuts, just to make the flotation possible," he said.

Most of the contentious issues in the run up to the sale of Railtrack and franchising of the train operations arise from the difficulty of privatising an industry which is making an overall loss. The long term level of subsidies has proved a particularly thorny issue.

According to Mr Swift, "the government has not come to terms with the fact" that it is required by privatisation to commit itself to subsidies more explicitly and for a longer period than if Railtrack had remained

in the public sector. "The taxpayer is taking on a larger burden than was explained at the time of the railways bill", he said.

Unlike water, gas and electricity, many rail services were not essential facilities, he argued. "The rail services into London are essential, but not intercity and regional ones," and sharp fare rises could cause people to switch to cars or buses, he said.

In the short term, Railtrack would be insulated from such swings in passenger numbers by its fixed contracts with train operators. But in the longer term, said Mr Swift, "its revenues are inevitably linked with the for-

tures of people paying for track access."

Mr Swift said he has not underestimated the scope for efficiency gains in Railtrack. He believes that Railtrack was "joined" by his decision to cut access charges for passenger services by an average of 8 per cent in real terms in 1995-96 compared to 1994-95, and by 2 per cent a year in real terms for five years. In other utilities, unexpected efficiency gains have contributed to steep profit rises and intense public criticism.

In the long term, he would like to see access charges vary to reflect peak and off-peak demand.

## Safety watchdog sees need for 'extra vigilance'

By Charles Batchelor, Transport Correspondent

The complexity of the new railway structure which is being created by privatisation will call for extra vigilance to maintain safety standards, the Health & Safety Executive - Britain's workplace safety watchdog - warned yesterday.

Safety standards were kept up during the railway's first year of operation under the

new arrangement but there could be no reason for complacency, said Mr Frank Davies, chairman of the Health and Safety Commission.

"The new structure is more complex and there are many more interfaces than before," he said. "In these changed circumstances it is essential that there is cooperation between all parties and good planning is absolutely vital."

The HSE has increased the number of inspectors by 50 per

cent to 38 to take account of the increased complexity of the railway.

The HSE's railway safety inspectorate is currently carrying out a review of the use of contractors made by Railtrack, owner and operator of track, signalling and stations.

The number of significant train accidents, those potentially the most dangerous to passengers, fell by eight to 110 on the main line network though if numbers on metro-

politan railways such as the London Underground are included they increased from 142 to 151.

The total number of people killed, excluding trespassers and suicides, rose by two to 42. Fatal accidents to passengers increased by one to 17 while staff killed rose from eight to nine. Thirteen people using level crossings were killed, one fewer than last year.

The total number of train accidents, including collisions,

derailments and fires, fell by 70 to 907. A programme to install central door locking led to a reduction in the number of people killed falling from train doors to five from eight the year before.

Trespassing on the railway led to 254 deaths, including 120 suicides and six children aged under 16. The year before 262 people died, including 141 suicides and eight children under 16.

The number of incidents of

trains passing signals at danger fell by 75 to 830 while the number of trains running into buffers decreased from 31 to 21. Sir George Young welcomed the report as proof that the newly structured railway was safe and serious accidents were relatively rare.

But Mr Brian Wilson, Labour transport spokesman, described it as "a deeply depressing warning of what lies ahead if fragmentation of the railways continues."

## UK NEWS DIGEST

## Part-time staff lose first round of legal contest

Part-time employees who brought test cases in which they sought backdated benefits from occupational pension schemes yesterday lost the first round of their multi-million pound compensation claim.

An industrial tribunal turned down claims lodged on behalf of 60,000 employees by the Trades Union Congress, which had argued that employers who barred part-timers from pension schemes could be guilty of indirect sex discrimination.

The TUC, which had estimated that compensation could amount to £95m (£146.3m), said it was urgently considering an appeal against yesterday's decision.

The 37-page ruling by the tribunal, which had sat in Birmingham, said it was not possible for the part-timers to claim any pension beyond the two-year period already established.

Mr John Monks, TUC general secretary, said part-timers would feel frustrated and angry about the decision. "The TUC is determined that employers should not be let off the hook for past discrimination and we know that part-time workers will want us to carry on their fight for pensions justice."

"The TUC is considering an appeal to take these claims forward to the Employment Appeals Tribunal where, if necessary, we will seek a referral to the European Court."

Mr Geoff Pearson, chairman of the working group on part-timers at the National Association of Pension Funds, hailed the decision as "a victory for common sense" but said that the recognised prospect of continuing uncertainty before the matter was finally resolved. He said the main issue in regard to part-time workers was not their access to occupational schemes but their reluctance to join.

Ten test cases had been taken to the tribunal by the TUC on behalf of part-time teachers, local government officers, college lecturers, bank workers and a health service employee. The TUC had calculated that a successful outcome would have benefited hundreds of thousands of part-timers.

Andrew Bolger and Alison Smith

## Gas company to expand

Compressed air and gas purification equipment manufacturer Domnick Hunter is to create at least 350 jobs over the next five years following a £3m (£4.62m) expansion of its plant in Gateshead, Tyne and Wear, it announced yesterday.

The recruitment programme, unveiled at yesterday's opening of the extension, will take the company's workforce to more than 1,000. The new investment has more than doubled its industrial division's manufacturing, laboratory and office space.

Tyneside-based Domnick Hunter, which floated in March 1994, exports around 70% of its output to more than 40 countries worldwide. It has won two Queen's Awards for Technology and three for Export.

Chris Tighe

## Ad body rap for Pepsi

Pepsi-Cola International has been told to change the way it advertises its famous "Pepsi Challenge" in the UK, following a ruling, published today, by the Advertising Standards Authority, the advertising watchdog.

The challenge, which has been running for 15 years, involves consumers blind taste testing Pepsi, the number two brand, against Coca-Cola, the market leader.

Mr Richard Branson's Virgin Cola Company complained to the ASA about a poster headed "61 per cent chose Pepsi". Virgin Cola said the poster did not make it clear that the figure referred to a comparison between Pepsi and Coke only.

Pepsi-Cola argued that the public knew the comparison was just with Coke and said that when people were asked about fizzy drinks, spontaneous recall of Virgin Cola was 1 per cent, while recall of Pepsi was 23 per cent and Coke 63 per cent.

The ASA said there had been widespread publicity on the launch of several other cola brands and Virgin research showed more people thought the comparison was with several brands than between just Pepsi and Coke. The ASA concluded "future advertisements for the Pepsi Challenge should clearly state the participating brands".

Diane Summers

## Award for FT writer

Robert Taylor, the FT's Employment Editor, was last night named national newspaper journalist of the year in the Industrial Society 1995 Industrial Journalism Awards. The judges cited his "unrivalled coverage of labour and industrial affairs", adding: "No other paper, and no other journalist, has revealed the significance of developing trade union and workplace stories so effectively." In a separate category, Vanessa Houlder, FT writer on management and technology, won the Science, Innovation and Technology Award for an "outstanding" range of articles. FT journalists also received commendations: Robert Corzine in the energy category; and Danny Green and Clive Cookson in science, innovation and technology. The awards are sponsored by Texaco.

## Defence ministry moves on missile for Eurofighter

By Bernard Gray, Defence Correspondent

Britain's Ministry of Defence yesterday took the first step towards buying the missile which will be the main armament for the £32bn Eurofighter. The MoD has asked companies to tender for the 11th design and production of the new air-to-air missile, which will give the Eurofighter the ability to shoot down enemy aircraft up to 80km away, defence Procurement Minister James Arbuthnot said yesterday.

This Future Medium Range Air-to-Air Missile is intended to replace the AMRAAM missile, made by Hughes of the US, which is currently the world standard missile in this class. The MoD wants to develop a new weapon because the AMRAAM does not meet the Royal Air Force's requirements for agility at long ranges.

AMRAAM will be guided to the target by its own radar, as is AMRAAM, allowing the Eurofighter pilot to fire the missile and immediately turn away from the dogfight. The current generation of UK missiles, Skyflash, has to be guided onto the target by the aircraft's own radar system.

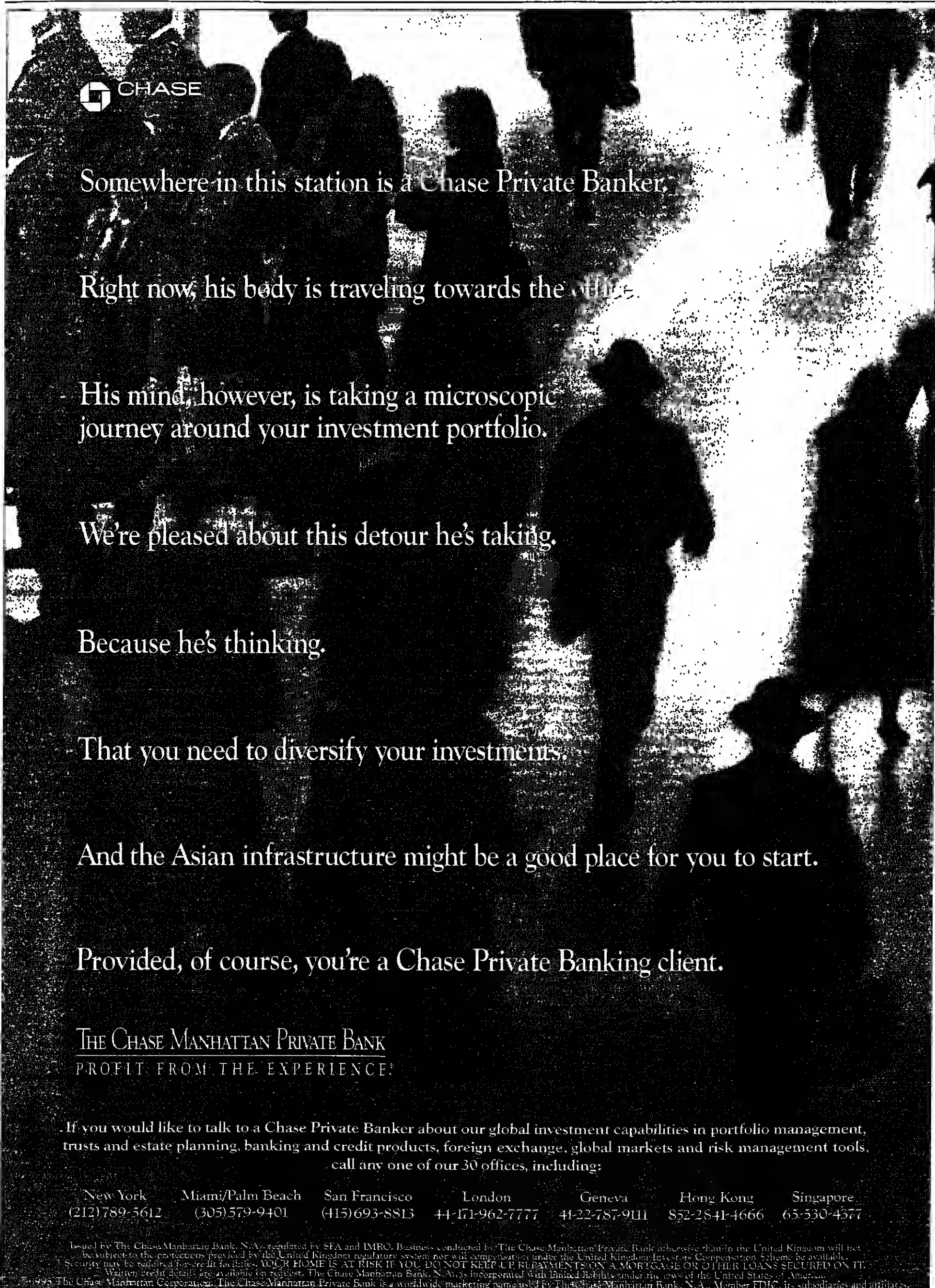
The MoD may be keen to develop its own missile within Europe, as it regards the

ability to export the weapon as highly important. Currently the US restricts the export of AMRAAM to some countries and might well restrict the use of any US-designed FMRAAM.

The export prospects for Eurofighter would be badly damaged if the US exercised such a power of veto over the sale of the aircraft's principal weapon. As the MoD thinks that the Eurofighter will be attractive to countries looking for advanced fighters in the next decade, it will want to make sure it can control access to the weapons synthesis.

Similar problems have already arisen with the US refusing to give detailed computer code information to the UK for AMRAAM missiles supplied for use by the Royal Navy.

The potential market for FMRAAM is huge because it will be compatible with the missile mountings and electronics which control AMRAAM, and could act as a replacement. Germany, Italy and Spain, as the other partners in Eurofighter, may well also be interested in collaborating on the weapon. Last week, Mr. reviewing the MoD's annual report on its largest projects, expressed concern that the cost overrun on Britain's share of the Eurofighter project had increased to £1.13bn.



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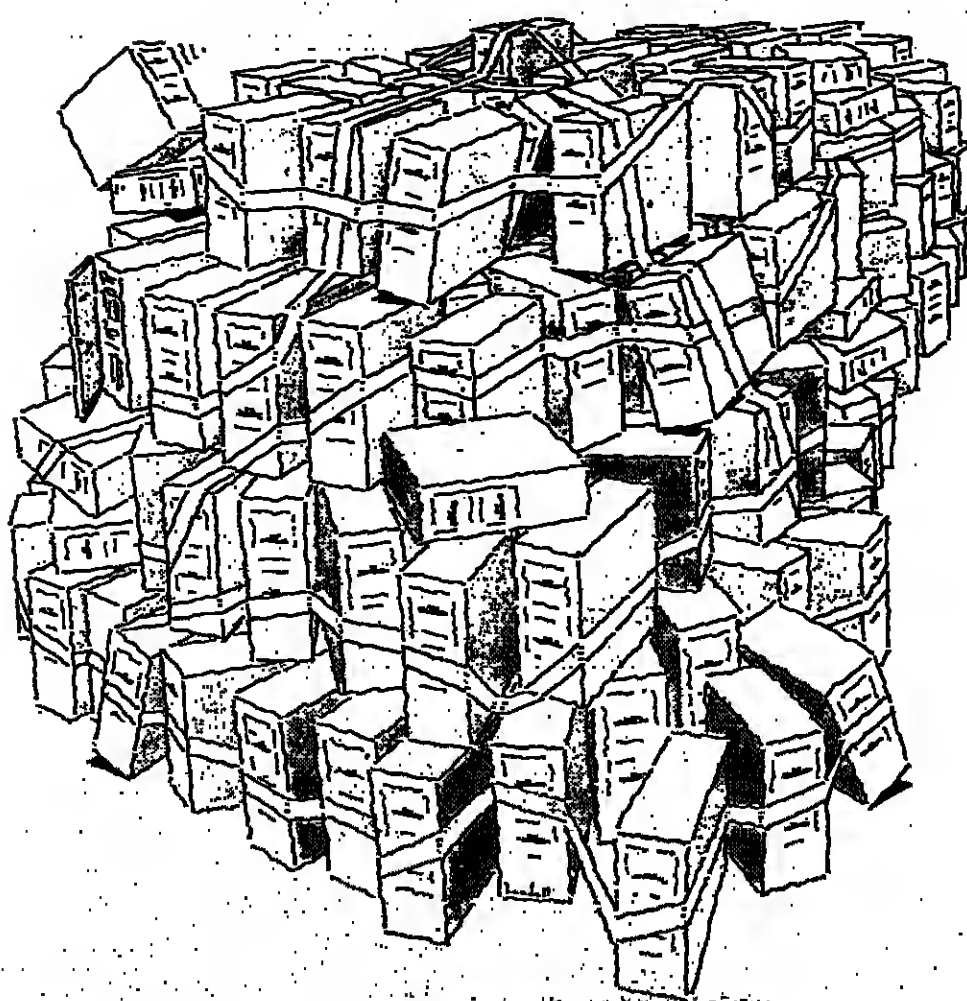
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## NEWS: UK

# Setback for Lloyd's Names' compensation efforts

By Ralph Atkins,  
Insurance Correspondent

Efforts by Lloyd's of London Names to squeeze compensation out of auditors at the insurance market have been set back by a court ruling striking out some of the biggest legal claims against one firm, Littlejohn Frazer.

The High Court ruling against Names - the individuals whose assets traditionally supported the market - on Gooda Walker syndicates is set to reduce

substantially any contribution that Littlejohn Frazer makes to Lloyd's proposed out-of-court settlement with litigating Names.

It will also make it harder for Gooda Walker Names - who plan an appeal - to collect all the £200m (£70m) in damages to which they believe they are entitled following their legal victory against Lloyd's agents in October 1994. Names are individuals whose assets have traditionally supported the 300-year-old insurance market. The Littlejohn Frazer case follows

a victory to October by Names on Merrett syndicates against Ernst & Whinney (now part of Ernst & Young) which loss-making Names hoped would persuade auditors to make a substantial contribution to Lloyd's settlement offer, currently worth £2.5bn.

Mr Alastair Campbell, senior partner at Littlejohn Frazer, said: "We have enormous sympathy for the Names and the grievous losses that they have suffered... But nobody has yet produced any evidence to suggest that those losses

were caused by any failure on our part."

He said auditors' attitude towards Lloyd's settlement plan would depend on how effectively the offer allowed firms to "draw a line under" past involvement at Lloyd's.

The claims struck out by the latest ruling could theoretically have cost Littlejohn Frazer more than £200m. But in practice the figure would have been lower because compensation is expected from Lloyd's agents also being sued by Gooda Walker Names.

The High Court has also struck out claims against Willis Corroon, the insurance broker, it said 1989 and 1990 underwriting losses on Gooda Walker syndicates were caused by negligent underwriting and there was no case for recovery against auditors or brokers.

The ruling allowed the Gooda Walker Names to continue some other claims against Littlejohn Frazer - which the Names said they would pursue "vigorously" - but Cameron Markby, Hewitt, the auditor's lawyers, calculate their

total value is only about £5m. Littlejohn's lawyers are also considering applying to have struck out a separate £300m claim by other Gooda Walker Names against the firm.

The latest case differed significantly from the successful Merrett claim against Ernst & Whinney where the court ruled auditors had wrongly allowed underwriters to close two years of account in the mid-1980s which should have been left open because of uncertainties about liabilities.

## Telecoms regulator challenge to BT

By Alan Cane

Mr Don Cruickshank, the telecommunications industry watchdog, yesterday challenged British Telecommunications to agree to his demands for greater powers to fight anti-competitive behaviour or face continued curbs on its commercial freedom.

"These proposals on BT's pricing freedom will not go ahead, cannot go ahead, until these conditions are met", he said at the FT World Telecommunications conference in London. BT replied yesterday: "We hear what he is saying, but we disagree with it."

Mr Cruickshank's challenge seems certain to bring to a head a dispute which has been simmering since July between the regulator and the UK's dominant telecoms operator. If the two parties cannot find common ground, the issue will be referred to the Monopolies and Mergers Commission, the second time this year that such a course has proved necessary.

Mr Cruickshank is proposing a new BT licence condition which would give him wide ranging powers to seek out anti-competitive behaviour and put a stop to it. BT has complained that his proposal is counter to natural justice and would give him the powers of policeman, judge and jury.

Earlier this week, Mr Cruickshank published a consultative document in which he set out proposals for a new regulatory structure to be implemented to 1997 which, he claimed, would offer BT considerably more latitude to set prices and run its business than under the existing regime.

He said yesterday that the proposals could only be implemented if he had the power to combat anti-competitive behaviour and if BT had administrative systems in place to make such behaviour detectable. He said: "The licensee needs adequate management information systems so it and any potential investigators can assess costs and details of transfer pricing. But BT does not yet have the information systems in place. It leaves me with considerable scepticism."

He added: "If I am to move to a less interventionist regime, I need to be confident and the public and the investor community need to be confident that regulation will be effective where it is needed."

The implication is that if BT rejects his argument, the regime which the company has described as "regulatory blight" and "hostile and unpredictable" would continue. BT, which controls some 90 per cent of the UK telecoms market, said it was not convinced that the proposals in Mr Cruickshank's consultative paper were deregulatory.

"Although perhaps they will prove so as time goes by," it said it was already investing large sums in training its 134,000 employees to understand and comply with competition rules. "We are making every effort but this is a huge organisation made up of human beings", BT said.

# Treasury resolute over Retail indicator reflects fragility forecasts for growth

By Gillian Tett,  
Economics Correspondent

Officials at the UK Treasury yesterday struck a resolutely upbeat note and insisted that the recent slowdown in growth in the economy should now have ended.

Expansion in the fourth quarter of this year will be as fast as the 0.4 per cent growth seen between the third and fourth quarters - and then accelerate in the first quarter of next year, officials added.

This analysis, which was presented to the Treasury select committee, is at odds with the growing gloom about growth prospects in the City.

Some City institutions, such as the US investment bank Goldman Sachs, have been cutting their growth forecasts in recent days amid fears that the excess levels of stocks currently held by manufacturers and retailers could sharply reduce activity over the winter.

Meanwhile, most City

observers assume that an acceleration to growth will only be possible by reducing interest rates from their current level of 6.75 per cent, possibly when Mr Kenneth Clarke, the chancellor, meets Mr Eddie George, the governor of the Bank of England, on December 13.

However Mr Alan Budd, the Treasury's chief economic adviser, yesterday flatly denied that the forecast for 3 per cent growth next year was dependent on interest rate reductions.

Mr Colin Mowl, director of forecasting at the Treasury, also downplayed the danger of a de-stocking slowdown, insisting that de-stocking would occur gradually over several quarters.

"Our forecast assumes that growth in the fourth quarter of 1995 will be roughly the same as in the third quarter and then there is a pick up in the first quarter next year," he said.

He added: "I do not think we

would expect that one should reduce interest rates to hurry up the speed of the stock adjustment."

Meanwhile, Mr Mowl defended the government's upbeat projection for 3.5 per cent consumer spending growth next year, arguing that it was as likely to overshoot as undershoot this. Although some economists suspect that the Treasury may have prepared the forecast before the recent spate of weak economic data, officials insisted that it had been finished only a week before the Budget.

In spite of this upbeat view, Mr Budd insisted the economy was still in line to meet the Government's aim to keep underlying inflation below 2.5 per cent in early 1997.

And he downplayed allegations that the recent expansion of broad money or decline in sterling may have made this target harder. "Our forecast for inflation would not be sensitive to recent reductions in sterling," he said.

By Graham Bowley,  
Economics Staff

A new measure of UK high-street spending launched yesterday is set to add to the debate on the slowdown in retail sales growth witnessed this year.

The British Retail Sales Consortium, the shops and stores trade association, published for the first time its retail sales monitor. The monitor is intended to improve on existing official statistics and other industry measures of high-street spending.

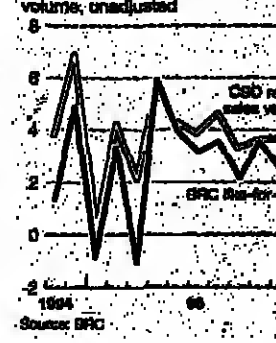
The monitor, published monthly, is based on actual sales data and anecdotal evidence from a sample of 75 large retailers who account for almost half of total UK retail sales.

It measures the growth in the value of retail sales, unadjusted for changes in prices or for holiday periods, each month compared with the same month a year earlier.

The consortium said the survey of retailers covers the same period as that covered by the Central Statistical Office's own figures on retail sales and

### Retail sales

% annual increase in retail sales volume, unadjusted



is therefore comparable with the official statistics.

But it said that the monitor had an advantage in that it was published a week ahead of the official figures. It said its objective was for the monitor to be the "earliest authoritative measure of monthly retail sales in the UK".

The consortium also said that the monitor would provide a more useful guide to retail sales than the Confederation of British Industry's distributive trades survey.

The CBI's survey has been

The Chancellor's forecast for economic growth next year is likely to prove over-optimistic according to an independent forecast derived from the Treasury's computer model of the economy. The Ernst & Young Item Club predicted the economy would grow by 2.7 per cent next year, instead of the 3 per cent predicted in the Budget. The forecast assumes government spending rises 1 per cent on top of inflation in the next financial year, instead of falling 0.5 per cent as the Treasury expects.

relying on economists for criticism on qualitative rather than quantitative data and for the fact that the survey period often does not correspond to that used by the CSO.

City economists welcomed the new indicator as another useful measure of the state of consumer spending, although they had several reservations.

They said that retail sales volume data rather than value data was watched more closely by the City and that it would be more useful if the consortium provided monthly season-

ally adjusted figures rather than annual unadjusted growth comparisons. But the story the new indicator tells about the recent slowdown in retail sales growth is similar to that by the other statistics.

It found that although the value of goods sold in Britain's high street shops grew modestly last month, consumer spending remains fragile.

It showed that the nominal value of retail sales last month was 3.2 per cent higher than the same month a year earlier on a like-for-like basis - which adjusts for changes in retailers' floor space.

The consortium said the like for like measure has provided a more accurate guide to general spending patterns and has mirrored most closely movements in the CSO numbers - although in recent months it has tended to understate the CSO's growth figures by around 0.8 percentage points.

The consortium said the latest monthly rise was a "modest pick-up" from 2.4 per cent annual growth in October but it was weaker than the 3.4 per cent annual growth rate in September.

## Apple industry warned over competition

By Alison Maitland

The English apple industry could be wiped out by foreign competition unless it develops and markets new varieties, an influential industry advisory group warned yesterday.

English apples' share of the £222m (\$496m) UK market has been declining steadily. It is now 36 per cent and no new varieties have been introduced for a decade, said the Strathclyde University Food Project.

The project was launched by Mr John Major, the prime minister, in 1982 to find ways of reducing Britain's £6bn trade deficit in food and drink. It is chaired by Sir Alastair Grant, chairman of the Argyl supermarket group.

The project's tree fruit working party yesterday launched what it called a blueprint for saving the apple industry. Ms Teresa Wickham, corporate affairs director of Safeway, delivered the report to Mr Douglas Hogg, the agriculture minister.

Apple production has shrunk from 380,000 tonnes in 1976 to 272,000 tonnes last year and the amount of land given over to orchards has fallen from 35,000 hectares to 20,000 hectares.

British growers are proving uncompetitive in the face of mass market-driven production of new varieties by exporters such as South Africa and New Zealand.

Mr Malcolm Schofield, a fruit grower and chairman of the working party, said the industry should produce a new variety every four to five years. The emphasis should be on English qualities of flavour and crispness.

"Our future existence depends on our ability to gain a premium over commodity apples. We have to be fast on our feet," he said.

He called on the government to divert up to half the £2.5m it spends each year on long-term research into developing new varieties which consumers wanted. "It's no use having projects with a 20-year lead time when in 20 years we might not have an English apple industry."

Genetic engineering could help improve the keeping quality of apples, so they were as crisp after six days as on the day they were bought.

The ministry should also fund a "new variety" supreme to link apple researchers and the retail market.



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## Broadcaster wins backing over funding arrangement

By Raymond Snoddy

Britain's terrestrial broadcaster Channel 4 has won the support of the independent Television Commission - the broadcasting regulator - in its campaign to end the funding formula that has required the channel to pay the TV companies £170m (£261m) so far.

The backing of the ITC to end the formula after 1997 is an important step forward for Mr Michael Grade, chief executive of Channel 4, in his campaign to overturn the agreement.

The precise form of the ITC backing has yet to be worked out but the case for abolition has the ITC's support in principle and a public statement of its position is now expected.

The Channel 4 funding formula was designed as an insurance policy to protect the channel's remit to be innovative once it started selling its own advertising to competition with ITV from the start of 1983.

Channel 4 has been so successful that to the first two years of the deal it handed over a total of £38.5m to the ITV company and expects to pay ITV £74.5m for this year. In the five years to the end of 1997 when the mechanism

comes up for review, Channel 4 estimates that it will have paid ITV a total of £230m, three times the original estimate.

Mr Grade has promised that if the funding formula is ended any money saved will be devoted to British production. Under the formula ITV is entitled to 50 per cent of any revenue Channel 4 earns above a threshold of 14 per cent of the combined advertising income of ITV and Channel 4.

Channel 4 is obliged to put half the remaining 50 per cent into a reserve fund and can spend the remaining 25 per cent on programmes. In return the ITV companies are bound to support Channel 4 should it go into deficit.

The channel believes that although immediate changes are unlikely it is increasingly confident that it can be overturned post 1997.

ITV will next week launch a document defending the funding formula, which is expected to argue that the formula regulates the marketplace between ITV and Channel 4 and is a way of encouraging the Channel 4 management to stick to their remit. The ITV companies will argue that the reason why so much money has been transferred to ITV is because Channel 4 has started to invade the mainstream market with a growing proportion of American imports, affecting ITV revenues.

than 20 per cent of ITN. Both Carlton and Granada each hold 36 per cent of the organisation because of the acquisition of other ITN shareholders - Central Independent Television and London Weekend Television respectively.

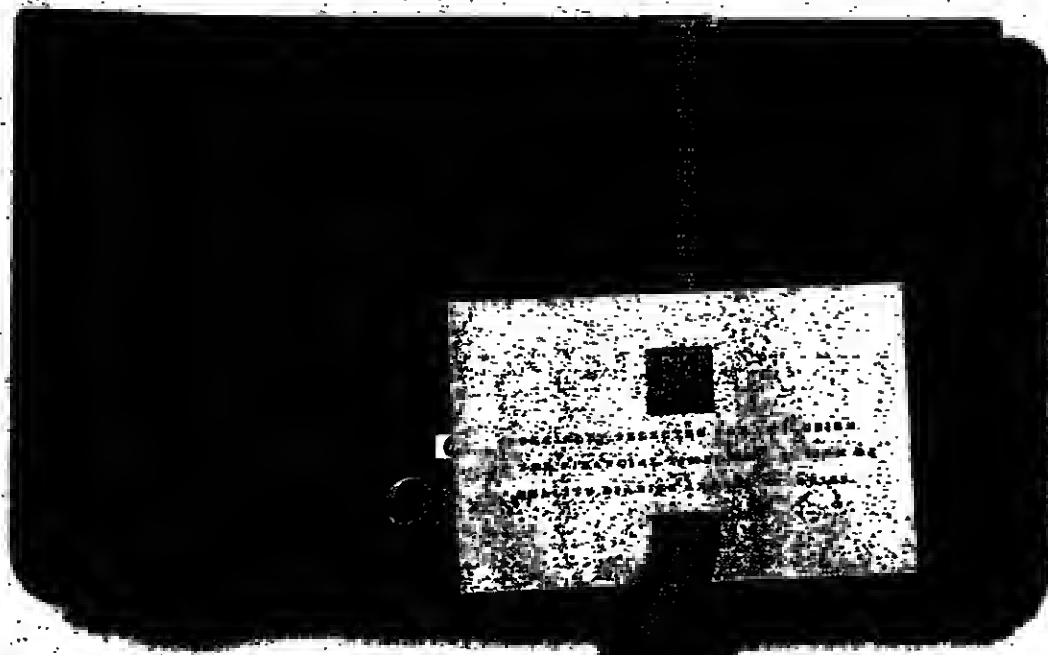
So far no share sale has been announced although other existing shareholders have pre-emption rights and have been offered the shares for the second time.

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## BUSINESS AND THE ENVIRONMENT

## Fewer aids sought

**D**emand for British environmental technologies is likely to fall sharply over the next 12 months, mainly because the government is perceived to be easing up on environmental regulation.

This is the conclusion of the latest annual survey by Environmental Policy Consultants, a group which lobbies on behalf of the environmental technology industry.

Only 72 per cent of the companies polled said they would be increasing their purchasing of environmental technologies over the next five years, down from 87 per cent last year. The sharpest fall is in air and water monitoring equipment, but other areas such as waste and water treatment, energy management and waste disposal are down.

The survey says: "This must reflect a perception by mainstream industry that the tide of UE and EC environmental legislation is beginning to wane as political attention [particularly in the UK] shifts to other policy issues." Pressure from consumers and environmental groups is seen as much less important.

The survey shows foreign suppliers making big inroads into the UK market. The British share of the market has fallen in all sectors except water monitoring. The reason, the survey's authors believe, is that countries such as Japan, Germany and the US create more effective environmental technology industries through rigorous enforcement of the regulations.

Meanwhile, Greenpeace has accused the UE government of repeatedly ignoring the recommendations of its own advisers by neglecting to support solar power. In a new report, the environmental group says that solar panels could be installed on the 2m sq m of new commercial and industrial roofing built each year in the UK. They could produce about 30 per cent of the average office building's electricity needs - and dramatically reduce emissions of carbon dioxide.

David Lascelles

**J**ari, one of the Brazilian Amazon's most controversial development projects, has always been the stuff of dreams. A farm half the size of Belgium which lost an American tycoon \$1bn (£600m), Jari's owners now hope eucalyptus can succeed where rice and other fast-growing trees failed. With the project's finances stretched and its environmental logic questioned, Jari's 3,000 workers pray the latest dream becomes reality.

The project was founded by the late US shipping tycoon Daniel Ludwig. When he bought the 1.6m hectare site on the northern bank of the Amazonas river, he was reckoned to be one of the world's richest men. His fortune had shrunk considerably by the time he sold out to the present Brazilian owners in 1982.

Rice yields from the complex Amazon soil were disappointing, while his imported gmelina hardwood trees were blighted by fungus.

Jari's new owners claim to have learned from past mistakes. Since 1990 they have concentrated on genetically improving strains of eucalyptus for cellulose production. The tree has grown well elsewhere in Brazil because of the warm, wet climate. Jari officials say the new strains will start showing big productivity gains from 1994.

"We now have the right genetic base and the right hybrid. By 1996 my output per hectare will have more than doubled and my costs will be considerably lower," says Fernando Tigre, president of Jari Cellulose.

Jari's consortium of Brazilian shareholders appears to share this new optimism. This year they invested \$500m (\$65m) in the project, even though it has made losses almost every year since its founding. Their decision was partly prompted by the sharp increase in cellulose pulp prices, which have jumped from \$350 a ton in 1983 to above \$800.

The money will help upgrade Jari's 17-year-old pulp mill, which was built in Japan and shipped ready-made to the Amazon. Improvements will lift the mill's capacity to 320,000 tons a year by 1998, from this year's expected output of 280,000 tons. Production of "elemental chlorine free" cellulose, environmentally preferred because a chlorine compound rather than pure chlorine is used in the bleaching process, will increase from 50 to 100 per cent of output. However, the company has no plans to produce totally chlorine-free cellulose, a product increasingly favoured in some markets.

About \$80m will be spent on a 33MW hydroelectric project to replace Jari's wood- and oil-burning generators and could lead to big energy savings. "From 1988, we're not going to be the lowest cost of

## Reality beckons

Angus Foster on the last chance for a Brazilian development project once considered a dream venture



Jari's owners hope eucalyptus can succeed where other trees have failed

the world's cellulose producers, but we will be in the bottom third," Tigre says.

Jari's problem is that such optimistic predictions litter its past. The company has promised to end its annual losses since 1988, but only managed to do so last year, with a small profit of R\$5.9m. In the first half of this year, the company was again loss making.

Jari's location is a big disadvantage. Infrastructure links in the

Amazon are extremely poor and all chemical inputs and industrialised products have to be transported several thousand miles from southern Brazil. Because Jari was installed in what was then primary tropical forest, the company had to build and subsidise schools and hospitals for its employees, as well as maintain a 5,000-mile road network around plantations. These costs add about R\$40 per ton of cellulose, potentially the difference between a profit and

loss when cyclical pulp prices begin to fall.

The company's environmental legacy is another concern. Jari is no longer cutting down primary forest to plant eucalyptus or to burn for electricity generation - practices criticised in the past. It also rejects concerns that intensive, monoculture eucalyptus planting can affect soil quality, and says its plantations are surrounded by corridors of primary forest to reduce the spread of disease.

But its social impact in the region, an aspect critics say it neglected in the past, is now coming under review. This could again add to production costs, since private companies are often obliged to adopt development agency functions in the Amazon in place of poor and badly run state governments.

The most visible manifestation of neglect, according to critics, is the town of Beiradão, which sprung up as a centre of prostitution and other services across the river from Jari's company town of Monte Dourado. Beiradão has about 25,000 inhabitants, many living in wooden houses without basic sanitation, and most with family members working directly or indirectly for Jari.

According to Luiz Carlini, one of two priests based in the town, Beiradão is a "labour reserve" for Jari, which has never accepted its responsibility for the symbiosis between the two centres.

An accord soon to be approved between the company and the state government of Amapá suggests Jari will be forced to become more involved with neighbouring communities. In return for permission to build its hydro-electric project, Jari agreed to set aside 100,000 ha of land as a reserve for families affected by the project. It will also sell up to 10 per cent of electricity generated to consumers in places like Beiradão. Such contracts were banned until earlier this year by Brazil's constitution.

Jóão Alberto Capiberibe, governor of Amapá, says he was pleasantly surprised by Jari's acceptance of the conditions. "I think they want to be seen to have our support because of the worries about their image," he says.

One of the more unusual sights at Jari are the thousands of water buffalo, introduced when the project had agricultural as well as forestry ambitions. Some Jari officials say rearing the animals is no longer economic and want them phased out. Pine species, which were popular in the 1980s and still make up about 40 per cent of Jari's planted forests, are also being reduced.

The buffaloes and pines, like Daniel Ludwig's rice and gmelina, may end up as more forgotten dreams. But with so much riding on the eucalyptus, Jari might not withstand another failure.

## Ancient forests under threat

Hundreds of plants and animals are at risk, reports Sheila Jones

**T**he "last remnants of western Europe's virgin woodlands" are being destroyed by timber companies in Scandinavia, according to ecologists lobbying businesses in Germany, the Netherlands and the UK this week. Ancient trees, among them 300-year-old spruce and pine, are being felled to make toilet rolls and newsprint, the campaigners say.

Forest activists from Norway, Finland, Sweden and the UK say hundreds of endangered plant and animal species are threatened because their habitats are being destroyed. They are urging timber and pulp buyers, including retailers and publishers, to drop suppliers known to be logging in threatened areas of the old-growth taiga forests of the northern hemisphere. They are also asking consumers to reject goods from threatened forestland.

While the rate of new growth in the taiga forests exceeds timber logging, new managed forests fail to provide suitable habitats for threatened species such as lichen and fungi, which survive on dead and decaying trees. Ancient conifers are being felled and replaced by single variety trees. Less than 5 per cent of the old-growth forests still exist in Scandinavia, the campaigners say. These areas include the "last remnants of virgin forests in western Europe".

"The last natural snow forests are being turned into tree farms where endangered forest-dwelling species cannot survive," says Rowan Tilly, of the London-based Women's Environmental Network. The taiga forests form a green belt of mainly coniferous trees circling the northern hemisphere countries including Canada, Alaska, Finland, Scandinavia, Russia and parts of Scotland.

About 30 per cent of forest production from Scandinavia is exported, mainly to the UK and Germany, where the ecologists are focusing their campaign. The Taiga Rescue Network, which groups a number of ecology and environmental bodies, is also urging timber and pulp buyers to examine alternative fibres for the production of paper and disposable products such as

nappies, tissues, packaging and sanitary protection. They point to fibre crops such as hemp and flax as possible alternatives.

The Taiga Network claims some progress, but it says much land is still threatened. Forestry practices are changing and governments are increasing protected areas. In Finland, 2.6 per cent of productive forest land is protected; in Sweden, under 3 per cent, and in Norway, 0.9 per cent. However, at least 10 per cent of land must be set aside if just 50 per cent of forestry is to be protected, says Roger Olsson of the Swedish Society for Nature Conservation.

"It is crucial for the protection of biodiversity in Scandinavia. In some areas, species of birds have declined 50 per cent," he says.

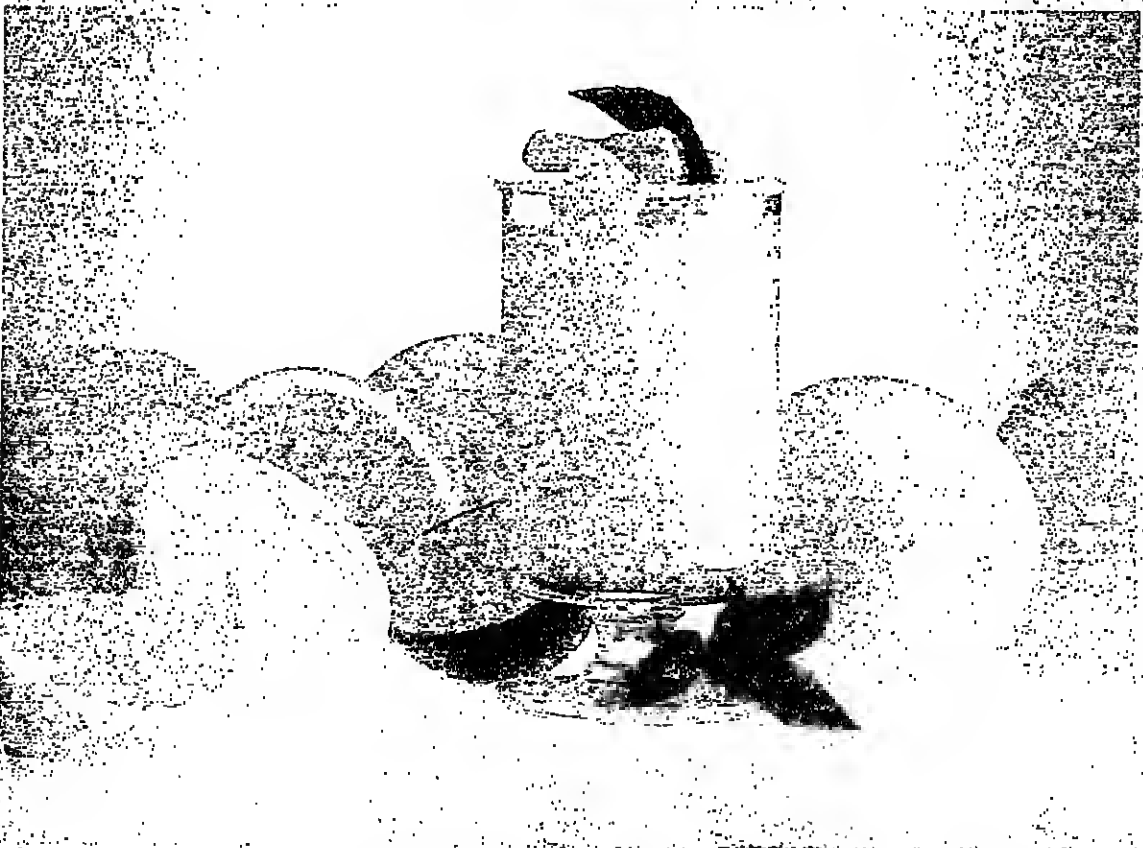
The Taiga Network is urging loggers to shift from clear-cut logging, in which old woodland is cleared, in favour of diverse forest management to preserve biodiversity. It is also pressing for a system of certification for loggers that can show they are not felling in threatened areas.

The network has recently persuaded one of Sweden's largest timber co-operatives to reconsider logging in a taiga region in southern Sweden. Ulf Gunnarsson, information director of the Södra co-operative, says the organisation is close to agreement to prevent logging in Ratjamskogen following the network's campaign.

SCA, the Swedish timber group, argues there is no clear definition of which areas are threatened. It is building an inventory of trees in its own 1.8m hectares of productive forest land, and it is discussing with ecology organisations the criteria for a certification system. However, Björn Lynjefelt, SCA communications manager, added that ecology groups hindered their own cause by "sweeping criticisms, slogans and unfounded accusations".

Among UK retailers approached by the network's campaigners, J. Sainsbury says it has been reviewing supplier lines to ensure they meet the company's own guidelines on packaging. These aim to use minimum packaging and to use recycled materials where possible.

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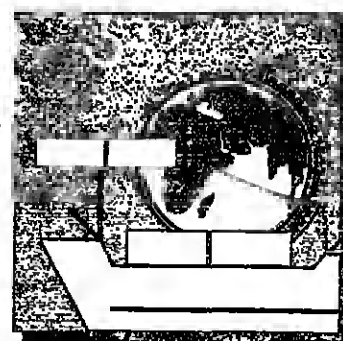
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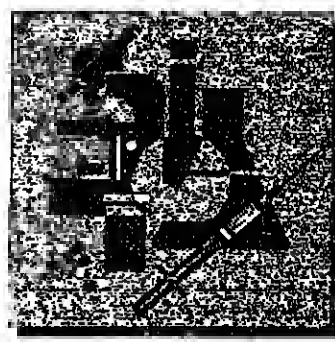
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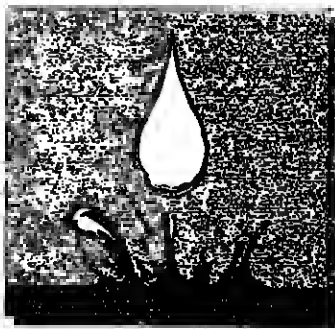
Trade



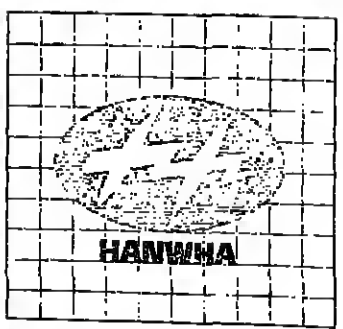
Pharmaceuticals



Distribution



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هكذا من الامين



## ARTS

Television/Christopher Dunkley

## Some real-life eye-openers

**D**o we really have to spend any time on Inspector Morse: The Way Through The Woods? It was competently made, though too long, and looked just like the previous Inspector Morse programmes. And what about all this Beatles stuff which has already received such quantities of publicity: is any of it telling us anything we did not already know? The early days in Hamburg, Ringo's auntie, the sessions at The Cavern, the Decca executive who decided not to give the group a contract - is this supposed to be news? Or an effort to boost bank balances which are down to their last few tens of millions? It is bad enough that television devotes so much time to this sort of unoriginal, uninformative, uninspiring material. What is worse is the readiness of newspapers to give vast amounts of space to promoting it before transmission, as though it were important and the papers were grateful handmaidens to the great god television.

Let us consider instead some of the programmes shown during the past week which have told us something we did not already know. The Channel 4 series *Secret Lives* is developing a wonderful line in iconoclastic biography. This is all the more refreshing given that television's usual line is hagiography (see that Beatles series, for instance). Last week director Madonna Benjamin and producer John Goddard turned the revisionist spotlight on Marie Stopes, birth control pioneer and author of *Married Love*, a sex manual which, when I read it in 1959, still seemed progressive and daring even though it was then 41 years old.

This programme showed that good old gutsy tell-it-like-it-is Marie wrote the book while still a virgin. It seems that she acquired her expertise while searching in the British Museum for evidence to support her claim of non-consummation of her own marriage. That was a bit of an eye-opener, but there was worse to come. It turns out that she was a megalomaniac and a bully, with beliefs on racial purity that would have delighted Adolf Hitler. Not only did she believe in eugenics, she forced her son to wear vast woolly knickers for fear that conventional garments would harm his genitals, and hysterically opposed his choice of wife when she showed up on the grounds of her "disability": she wore glasses. It was no surprise to hear that Muriel Spark, challenged by this harpist for leadership of the Poetry Society, said she wished that Marie Stopes' mother had thought of birth control.

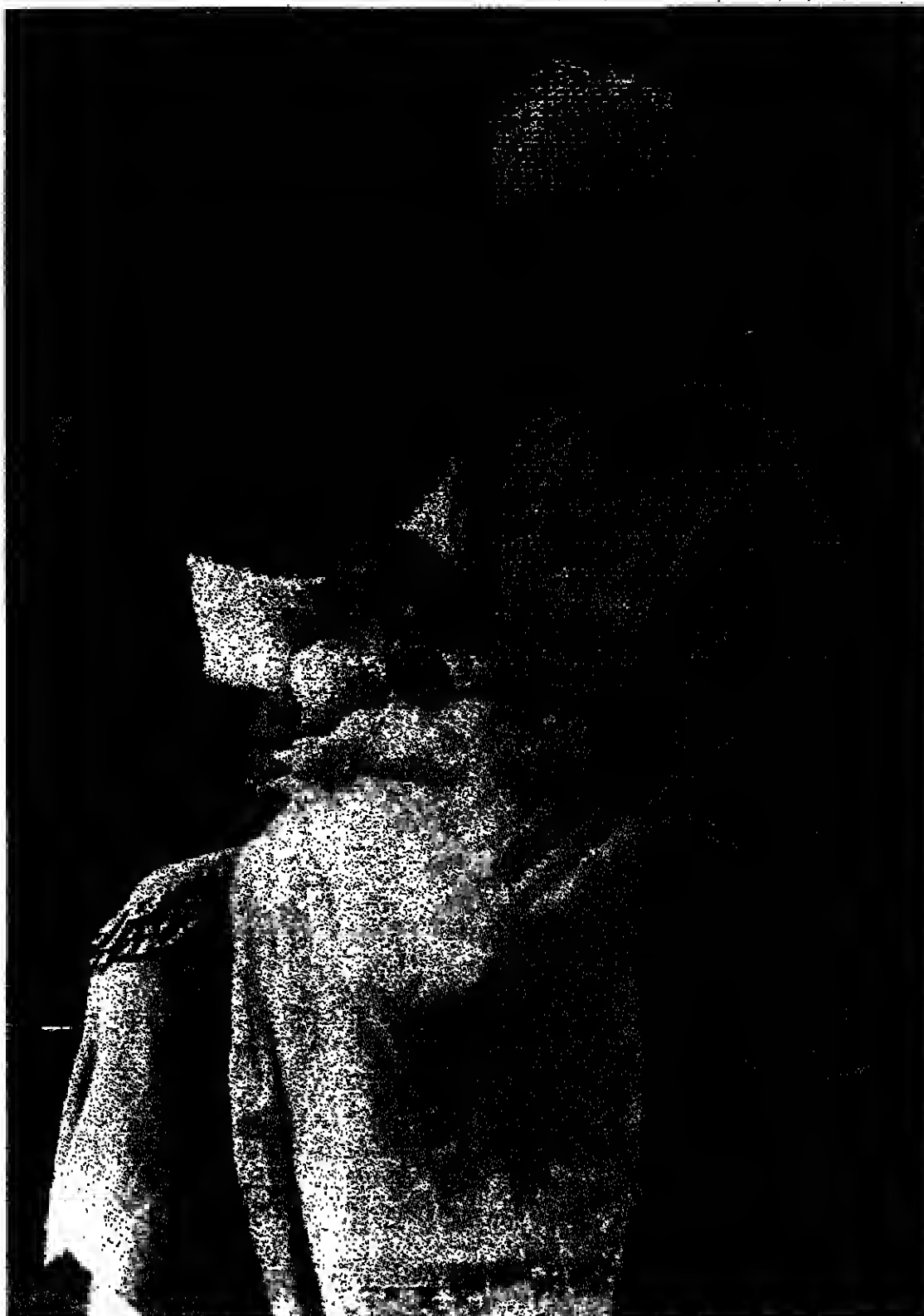
Like several previous episodes in *Secret Lives* that was eye-opening. So *The Factory* on Channel 4, a fly-on-the-wall series made by Paul Watson,

producer of *The Family and Sylvia Waters*. This is less sensational, yet possibly the best thing Watson has ever done. Perhaps people from the gas fire factory in Liverpool will tell us it is unfair, yet they must, presumably, have agreed to have the cameras in. The entire series has looked like one of those "How not to do it" training films. If you showed it to the Japanese they would think it was a sitcom. The workers' canteen has been closed. The lavatories are appalling. The nurse has been dismissed. Practically the entire workforce seems to suffer from repetitive strain disorders of one sort or another. Television tells us so little about one another's working lives that it is hard to know whether this factory is a lone survivor from a Dickensian past, a pretty typical example, or something in between. Even if it is unique, which seems highly unlikely - this is a valuable series.

You would not apply the word "valuable" to *Eurotrash*, yet there is no denying its originality. In the beginning - presented by Antoine de Caunes, ze man wiz ze verre theek (yet undeniably splendid) accent - it was a European television version of the old weekly tabloid *TV Bits*, full of items that could be headed "Just Fancy That", with a leaning towards the titillating.

Now, presented by de Caunes in harness with Jean-Paul Gaultier, it operates under the title *Eurotrash: The World Tour*, goes anywhere, and concentrates almost exclusively on sexual oddities. For Friday's edition (meaning the producers, not de Caunes and Gaultier who froot the whole thing from a studio) went to Japan to show us the Festival Of The Penis, a TV weather girl with flip-up metal bra cups, and a dog-dating agency. The tone is mocking and much of the material trivial, yet in half an hour of *Eurotrash* you are likely to hear ten times as many things you did not know as in all the recent Beatles programmes laid end to end. You are likely to laugh a lot more, too.

Assignment on BBC2 provided a disturbing report on small town America. A visit to Kalspell in Montana revealed a real-life *Twain Peaks*. On the one hand there are the religious nutters who fire-bomb the abortion clinic and send their children to schools where they shoot horns and into the maths lessons. On the other hand there are growing numbers of incomers who are retreating to the Rockies from hotspots in California and elsewhere and who tend to be liberals, feminists, and homosexuals. This is the sort of place where many believe passionately in the famous misinterpretation of the "right to bear arms" phrase in the constitution and belong



Marie Stopes, the birth control pioneer, with her son: according to Channel 4's *'Secret Lives'* she was a megalomaniac and a bully and wrote *'Married Love'* whilst still a virgin

to private militias. They see attempts to tighten up the gun laws as preparation for the UN (yes really, the United Nations) to take over the US.

Some viewers will know the country well enough to be familiar with attitudes in the boondocks without a programme such as this, but for most of us it will surely have been illuminating. Much the same can be said, I suspect, for Irvine Welsh, subject of *In Your Face*, also on BBC2. Having

seen his books (*Trainspotting*, *The Acid House*, *Marabou Stork Nightmares*) stacked high in the shops, and read the profiles of him, we are aware of his existence but not too sure about the sort of thing he writes. This programme made it abundantly clear: a latterday William Burroughs, capable of conveying the experience of the Scottish junkie from the inside, Welsh himself appeared, explaining that "drugs of choice" changed in the 1980s

from the legal (alcohol and tobacco) to the illegal (heroin and crack). And critics and admirers appeared, explaining why they find his work unusual and compelling. It would take a stubbornly resistant viewer to watch this programme and at the end not want to sample at least one of Welsh's books.

Is there anybody who could be similarly turned on to the Beatles by all those documentaries?

words that ring true from a woman who looks like the prize product of a whole team of hard-working beauticians.

Raad Rawl brings simple dignity to the role of Fra, and the fresh-faced wide-eyed Christopher Staines is well cast as the simpliciton. "I am weak-minded and lose my head very easily," he says in an adorable speech. Some of Shaw's weaknesses are apparent. His brand of feminism led him, for example, to make Prola rather too obvious and simple a super-earthmother; and, the charming artifice of the play's talk keeps it always in Never Never Land. And so what? I do not mean it entirely kindly when I call *The Simpleton* a harmless play; not I am very glad to have seen it. Shaw's weaknesses are much more admirable than most playwrights' virtues.

At the Orange Tree, Richmond, until January 27.

Theatre/Alastair Macaulay

## Rare Shaw revived

In 1933 and at London's Arts Theatre in 1945, Sam Walters' new staging at Richmond's Orange Tree Theatre may be London's first public production of it. Shaw did not have in mind a theatre where the audience sits on all four sides of the stage, and where there is virtually no scenery. In the event, however, this setting enables us to concentrate all the more on Shaw.

He was, among other surprising things, a multiculturalist. Modern audiences at first may be nervous when they hear some characters use the words "nigger" and "Jew boy", but it soon becomes clear that Shaw's only prejudice is against Eurocentricity.

"Polygamists form the vast major-

ity of the subjects of the British Empire," Prola, the beautiful local earth-mother type, tells the young simpliciton. "Try to remember that, and that you are not in Clapham." Prola and Hyering are two of six adult characters who have reared four divine superchildren, Maya, Vashiti, Janga and Katchin who are physically perfect, but with no scrap of moral conscience. Young Hammingpaw has only too much conscience: a true holy fool. Perhaps, with Maya and Vashiti, he will breed superchildren of a yet higher order; and so Act One ends.

But Shaw was as sceptical about eugenics as he was about everything else. *The Simpleton of the Unexpected*

*Isles* will prove more entertaining if you do not know what happens. The entertainment has a serious dimension. As always, Shaw is engaged with what is the best way to live. We assume at first that *The Unexpected Isles* are a kind of Utopia: we realise eventually that they are the whole world. Hugo Hyering's wife constantly trots out the catchphrase "Let life come to you"; she does not always mean it, but Shaw does - except that he also believes in the reverse, in letting yourself come to life.

Kate O'Mara plays Prola. There is so much more to say about her figure and her maquette than about her acting. "Surprise and wonder are the very breath of my being" are not

words that ring true from a woman who looks like the prize product of a whole team of hard-working beauticians.

Raad Rawl brings simple dignity to the role of Fra, and the fresh-faced wide-eyed Christopher Staines is well cast as the simpliciton. "I am weak-minded and lose my head very easily," he says in an adorable speech. Some of Shaw's weaknesses are apparent. His brand of feminism led him, for example, to make Prola rather too obvious and simple a super-earthmother; and, the charming artifice of the play's talk keeps it always in Never Never Land. And so what? I do not mean it entirely kindly when I call *The Simpleton* a harmless play; not I am very glad to have seen it. Shaw's weaknesses are much more admirable than most playwrights' virtues.

At the Orange Tree, Richmond, until January 27.

Concerts/David Murray

## Solti honours Bartók

**S**ir Georg Solti's round of Bartók at the Barbican concluded last Sunday, but its peak came on Thursday with *Duke Bluebeard's Castle*. This extraordinary one-act opera usually goes well in a concert performance; the "action" is entirely psychological, and fully rendered - in all its sinister ambiguity - by Bartók's searing score.

As Bluebeard, Solti had the Hungarian bass László Polgár, a brooding presence with a noble voice, equal to any challenge from the large orchestra (here the London Symphony in top form), perfect in this role. Julia Varady's Judith was brave and intelligent. Around them, Solti spun a glittering web, fluent and impassioned beyond the norm.

In this early masterpiece (first drafted in 1911, and Bartók never wrote anything much like it again) the music is laid out in sections, like successive panels of a frieze, and that is most often how conductors play it. With the boldness of long experience, Solti swept many distinct sections up into great dramatic curves: there seemed to be more long-breathed spans than one had ever realised. Sometimes his intuitions crossed the strict letter of the score, but who would argue? This was an electrifying performance.

Enterprisingly, the Barbican had unearthed a Michael Powell television-film of the opera, made at Salzburg in 1964. Sadly, it proved on Sunday to be no great shakes: good soloists (Norman Foster and Ana Raquel Satre) all too obviously dubbed, over a dull orchestral

reading that was ill-recorded, shrill and choked. Visually, there was one small, irrelevant trisson when swords stabbing toward Judith from all round the frame suddenly recalled Powell's *Peeping Tom*.

Otherwise, the film combines absurdly intrusive décor with Hollywood-stagey handling of the principals. The text is credited to Béla Balázs, but the "text" Balázs - who later became an important film-theorist - gave Bartók included not only the words but a detailed visual scenario, stark and plain: Powell's arty mess would have made him ill.

András Schiff figured in both of these Solti concerts: in the second of Bartók's piano concertos on Thursday, and for Sunday's chamber-music concert his exuberantly inventive Sonata for two pianos and percussion, with young Dénes Várjon as partner and Solti as self-effacing conductor. In both works Schiff's light-fingered touch and agile wit, which put an off-line spin on many a phrase (nicely echoed by Várjon), were charming.

I confess an unshakable loyalty, however, to the Bartók's own (Bartók and his second wife's) reading of the Sonata, which they deliver firmly, evenly and rather bluntly, though with robust good humour. The vital structure emerges better without local distractions. This is not Romantic music, nor is the 2nd Concerto - in which, incidentally, Solti and Schiff often tended to part rhythmic company.

Chamber-concert sponsored by Mrs Jackie Rosenfeld.

Opera

## A static 'Aida'

**N**ew just a year and a half ago, Elijah Moshinsky's accessible, all-purpose production of Verdi's opera has already had several disparate casts. The singers the Royal Opera engaged for it kept dropping like flies. Partly as a result, his *Aida* has not yet enjoyed a strong, consistent team of soloists who could justify Moshinsky's budget-wise rejection of the usual grandiose pomp. The latest cast is pretty disparate too, though it has its fine moments.

Daniela Gatti conducts an instantly up-tempo *Aida*, indifferent to poignant sentiments of the preludes but attentive to the urgencies of the action. His soloists are another motley crew. The American tenor Michael Sylvester delivers a mature, full-hearted Radames, lyrically uninteresting in "Celeste Aida" but virile and musical later on. Like most tenors, he is not flattered by Covent Garden's flat acoustic; we only began to appreciate him properly when he had a front-stage backdropped close behind him.

As Amneris, Nina Terentiev again sings her Italian *d la Russe*: guttural, exciting and quite unimpeachable, except in cries of "Amore!" She has to wait for the Act 3 scene to exploit her grand mezzo range. Simon Estes, the black American *Heldenbarbar* whom we know already in Wagner roles,

makes a taut, forceful Amorusso. The high priest Pater Rose exerts a pleasant, cultivated bass where something blacker is *de rigueur*.

In *Aida* several characters can be as apt enough, so long as they seem to live and breathe. That, however, requires palpable interaction, beyond what the rehearsal-schedule seems to have permitted. The new *Aida*, the American star Sharon Sweet, is a case in point (undimmed by any trace of an Ethiopian tint, probably through "p.c." sensitivity winning over dramatic sense). A large soprano in both senses, she moves with dignity and extreme decorum; expressive gestures need slow, careful planning and execution, and are therefore rather infrequent.

Watching *tableaux vivants* may have been like this. Any spontaneous feeling is represented decorously, in naive semaphores, and too late to matter: too late to find any frisson in her confrontation with Amneris, or in the crucial set-to with Radames. Miss Sweet gives good concertaria, but she is no operatic actress. We had to be content with the incidental delights of her musically art, strong-voiced if not remarkably beautiful. There is more to *Aida* than that.

D.M.

At Covent Garden until December 30.

## INTERNATIONAL ARTS GUIDE

## AMSTERDAM

**CONCERT**  
Concertgebouw  
Tel: 31-20-5730573

● Radio Kamerorkest: with conductor Peter Ešvóg, tenors Peter Hall and Valery Serkin, basses Gert-Jan Alders and Jan Atois, and Marta Fabián on cymbals perform works by Stravinsky, Beethoven, Berlioz, Kodaly and Schubert; 8pm; Dec 9

**EXHIBITION**  
Stedelijk Museum  
Tel: 31-20-5732911

● Metz & Co.: De creatieve jaren: this exhibition focuses on the "department store of the avant-garde" Metz & Co. Between 1920 and 1960 several architects, furniture designers and artists were commissioned to create products for this firm; from Dec 9 to Feb 18

## BERLIN

**CONCERT**  
Komische Oper  
Tel: 49-30-202600

● Orchester der Komische Oper: with conductor Lothar Zagrosek

perform works by Stravinsky, Hindemith and Bruckner; 8pm; Dec 7

**Konzerthaus**  
Tel: 49-30-203092100/01

● Berliner Sinfonie-Orchester: with conductor Matthias Jung, the Dresden Kammerchor and tenor Markus Brucher perform Britten's "Saint Nicolas" and Dostoev's "Die Weihnachtsgeschichte"; 8pm; Dec 9, 10, 11

● Philharmonie & Kammermusiksal  
Tel: 49-30-254880

● Berliner Philharmonisches Orchester: with conductor Claudio Abbado and pianist Maurizio Pollini perform Brahms' "Piano Concerto No. 2" and R. Schumann's "Symphony No. 3"; 8pm; Dec 7, 8, 9

## BRUSSELS

**CONCERT**  
Palais des Beaux-Arts  
Tel: 32-2-5078466

● Koninklijk Concertgebouw: with conductor Gennady Rozhdestvensky and cellist Yo-Yo Ma perform Dvorak's "Cello Concerto in B minor" and Prokofiev's "Symphony No. 5"; 8pm; Dec 9

## CHICAGO

**EXHIBITION**  
Museum of Contemporary Art  
Tel: 1-312-280-2660

● Andres Serrano: Works 1983-1993: the first major mid-career retrospective of Serrano's large-scale Cibachrome photographs, featuring more than 50 works created during the last 10 years. Serrano's work often examines controversial subjects

such as religion, racism, homelessness and death; from Dec 9 to Feb 4

## COPENHAGEN

**DANCE**  
Det Kongelige Teater  
Tel: 45-33 14 10 02

● The Triumph of Death: a choreography by Flemming Flindt to music by Thomas Koppel, performed by the Royal Danish Ballet. The ballet is based on Ionesco's play "Jeux de Massacre"; 8pm; Dec 8

## FRANKFURT

**THEATRE**  
Schauspielhaus  
Tel: 49-69-21237444

● Heidenplatz: by Bernhard. Directed by Peter Eschberg and performed by the Schauspiel Frankfurt; 7.30pm; Dec 7, 8

## HANOVER

**THEATRE**  
Niedersächsisches Schauspielhaus  
Tel: 49-511-1886146

● Ivanov: by Chekhov. Directed by Hartrut Wickert and performed by the Niedersächsisches Schauspiel (in German); 7.30pm; Dec 7

## LONDON

**AUCTION**  
Sotheby's; Parke Bernet & Co.  
Tel: 44-171-2401200

● The Dr Otto Schäfer Collection Part IV - The Jean Fürstberg Collection of 18th-century French Books: the fourth sale from the

library of book collector Dr Otto Schäfer comprises the collection of 16th and early 18th-century French books which Dr Schäfer acquired en bloc from his long-time friend and fellow bibliophile Jean Fürstberg in 1974. Highlights of the sale include Charles Hersent's "Optati Galli de cavendo schismate", published in Paris in 1640. Cardinal Richelieu ordered all copies of this book to be burned, because it described the power struggle between the French and Roman churches; 10.30am; Dec 7, 8

**CONCERT**  
Purcell Room  
Tel: 44-171-9604242

● Klezmer Swingers: Wallace Fields, Ron Findon, Alan Berlyn, Murray Salmon and Malcolm Bell trace the cultural development of Jewish music from the streets of Odessa to the speakeasies of New York in the 1920s; 7.30pm; Dec 7

● The London Philharmonic: with conductor Alexander Lazarev and pianist Nikolai Demidenko perform Rimsky-Korsakov's "The Story of Tsar Saltan", Prokofiev's "Piano Concerto No. 2" and Liszt's "Les préludes"; 7.30pm; Dec 8, 15

● Gabrieli Consort & Players: with conductor Paul McCreesh perform works by J.S. Bach; 7.30pm; Dec 7

**DANCE**  
Royal Opera House - Covent Garden  
Tel: 44-171-2401200

● The Royal Ballet: perform the choreographies "Apollo" and "Duo Concertant" by Balanchine, "Sideshow" by MacMillan and "Fearful Symmetries" by Page; 7.30pm; Dec 7, 14

## EXHIBITION

Whitechapel Art Gallery  
Tel: 44-171-5227880

● Emil Nolde: exhibition of the work of the German Expressionist Emil Nolde (1867-1956). The display contains paintings, watercolours, drawings, prints and applied art objects, and takes in the whole range of Nolde's career and themes, including his symbolic landscapes and religious scenes, his depictions of the cabaret and city life, and his interests in the erotic and the grotesque, in primitivism and race; from Dec 6 to Feb 25

## LOS ANGELES

**DANCE**  
Wadsworth Theater  
Tel: 1-213-825-2101

● Nederlands Dans Theater 3: perform choreographies by Kylian; 8pm; Dec 8, 9

## NEW YORK

**CONCERT**  
Avery Fisher Hall  
Tel: 1-212-875-5030

● I Musici: perform Christmas Concert of the Italian Baroque, including works by Corelli, Manfredini and Vivaldi; 7.30pm; Dec 10

**EXHIBITION**  
The Metropolitan Museum of Art  
Tel: 1-212-879-5500

● Haute Couture: a technical examination of the quality and properties of haute couture, using The Costume Institute collection. Designers from the House of Worth to the present are included in this exhibition intended to highlight couture detail and tailoring;

from Dec 7 to Mar 24

## PARIS

**CONCERT**  
Salle Pleyel  
Tel: 33-1 45 61 53 00

● Orchestre Symphonique Français: with conductor Laurent Pottgiard and pianists Michel Beroff, Jean-Philippe Collard, Gabriel Tacchino and Bruno Rigutto perform piano concertos by J.S. Bach; 8.30pm; Dec 11

## SALZBURG

**EXHIBITION**  
Rupertinum - Salzburger Landesammlungen  
Tel: 43-662-80422336

● Die göttliche Komödie: exhibition of some 100 works produced by Markus Valizza in recent years; from Dec 7 to Feb 18

## VIENNA

**CONCERT**  
Konzerthaus  
Tel: 43-1-7121211

● Mara Zampieri: gala performance by the Italian soprano. With the ORF-Symphonieorchester conducted by Alexander Rahbari; 7.30pm; Dec 7

## WASHINGTON

**CONCERT**  
Terrace Theater  
Tel: 1-202-467 4600

● Muir String Quartet: with harpist Heidi Lehtwälder, violinists Peter Zazofsky and Wei-Pin Kuo, viola-player Steven Ansell and cellist Michael Reynolds perform works by Haydn and Brahms, and the premiere of Silver's "Harp Quintet (From Darkness Emerging)"; 7.30pm; Dec 7

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الرياض ١٤١٦



## COMMENT &amp; ANALYSIS



Edward Mortimer

## Out of safety's reach

The home secretary's bill is designed not only to weed out bogus asylum seekers but to keep genuine refugees away from the UK

"Immigration policy will be decided here in Britain, and not in Brussels." So Michael Howard, the British home secretary, told the Conservative party conference in October. No doubt he would wish his Immigration and Asylum Bill, now before the House of Commons, to be seen as an example of this distinctively British approach.

The truth is slightly more complicated. Under the Maastricht treaty, immigration policy is classified as a "question of common interest", and Mr Howard attends meetings of the European Union Council when it deals with home affairs. Last June he and his colleagues adopted a "resolution on minimum guarantees for asylum procedures".

This laid down the general principle that asylum seekers have the right of appeal if their applications are rejected, and should be allowed to remain in the country while the appeal is pending. But it made an exception for cases where the ground for rejection is that the applicant could and should have sought asylum in a "safe third country" - that is, a country through which he or she has already passed since leaving his own.

The EU ministers undertook to "strive to bring their national legislation into line with these principles by January 1 1998". France, the Netherlands, Denmark, Finland and Germany have already done so. Mr Howard, like a good Eurosceptic, is dragging his feet a little. But the bill he has now tabled brings him into line, since it will strengthen existing UK provisions that make appeals against return to a safe third country exercisable only after removal.

Alas, "after removal" is too late, as research by Amnesty International shows. Earlier this year, the human rights group looked at 60 random cases of asylum seekers whose applications had been refused on these grounds, and found that in the overwhelming

majority of them the Home Office ultimately rescinded its decision and agreed to examine the substance of their claims in the UK. In only one case was the asylum seeker ultimately expelled to a third country without being "bounced back" to the UK.

That case is hardly encouraging. "Mr A", an Iraqi, was sent back to France where a French refugee agency told him it would be "pointless" to apply for asylum because he had already been through several other countries on his way there. He spent several weeks in a destitute state, sleeping in public parks, and has now disappeared. Clearly he had not had "an opportunity to seek and, if appropriate, obtain protection" in France, although that was the basis of his rejection by the UK.

In all the other cases, either the applicant was "bounced back" to the UK by the receiving country, or it was eventually accepted that there would be a genuine risk of them ending up back in the country whose persecution they claimed to be fleeing. In other words the "safe third country" was not so safe after all, and the UK authorities could not escape responsibility for deciding whether the applicant was a genuine refugee or not.

A lot of time, money and anguish would be saved if this responsibility were accepted in the first place, and the validity of asylum claims were automatically assessed in the country where asylum is actually requested. To remove people first and let them appeal afterwards is callous and cynical, since the issue they are appealing on is whether the country they are removed to is safe for them or not.

Appeals, a necessary part of any judicial system, become meaningless unless it is accepted that they will sometimes be well-founded, and that, if they are, it must be possible to reverse the effects of the verdict as well as the verdict itself. But Mr Howard proposes, in effect, to treat appellants as if their appeals had already failed. His colleague Peter Lilley, the social security secretary, is doing the same to asylum seekers who appeal against a rejection of their claim.

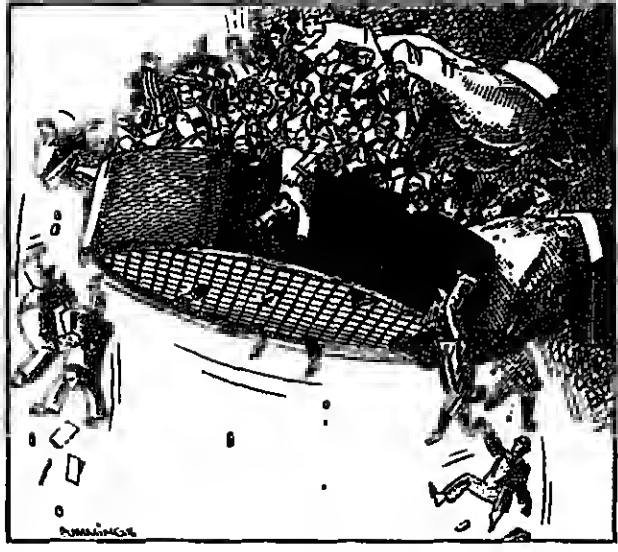
Under new regulations that Mr Lilley has tabled, such people will no longer be entitled to social security. The office of the UN high commissioner for refugees has made representations about this, being

"unable to see how a legal appeal right can be fairly accessed if the appellant is not given the assistance necessary to sustain him or herself in that period". It is a disability many of us must share.

Not only appellants are to lose their entitlement to benefit, but also people whose asylum application has yet to be answered at all, if they applied after entering the country rather than at the moment of entry. The only exceptions will be those whose country the home secretary, in his wisdom, has designated "a country of upheaval", ie, one to which a major change of circumstances prevents their return. Even then they would be eligible for benefit only if they lodged their claim within three months after such a declaration, and not before it.

You might think that nationals of a country would be aware of such a change of circumstances before the Home Office. The latter's country profile on Nigeria, for instance, stated as recently as September that there was "no evidence that Ogonis... face persecution from the Nigerian authorities for membership of Mosop", the movement headed by Ken Saro-Wiwa. But under these rules anyone who makes the mistake of applying for asylum before Mr Howard has admitted the existence of an upheaval in their country will not be entitled to benefit.

These proposals make a mockery of Britain's claim to be honouring its obligation to protect genuine refugees under the 1951 convention. Their object is not, as is claimed, to weed out "bogus" asylum seekers, but to deter even genuine ones from choosing Britain as a destination, and above all to provoke the Labour party into adopting a position that can be represented as "pro-immigration" in the coming election campaign. There could hardly be a clearer way for Britain's rulers to demonstrate their low opinion of the electorate.

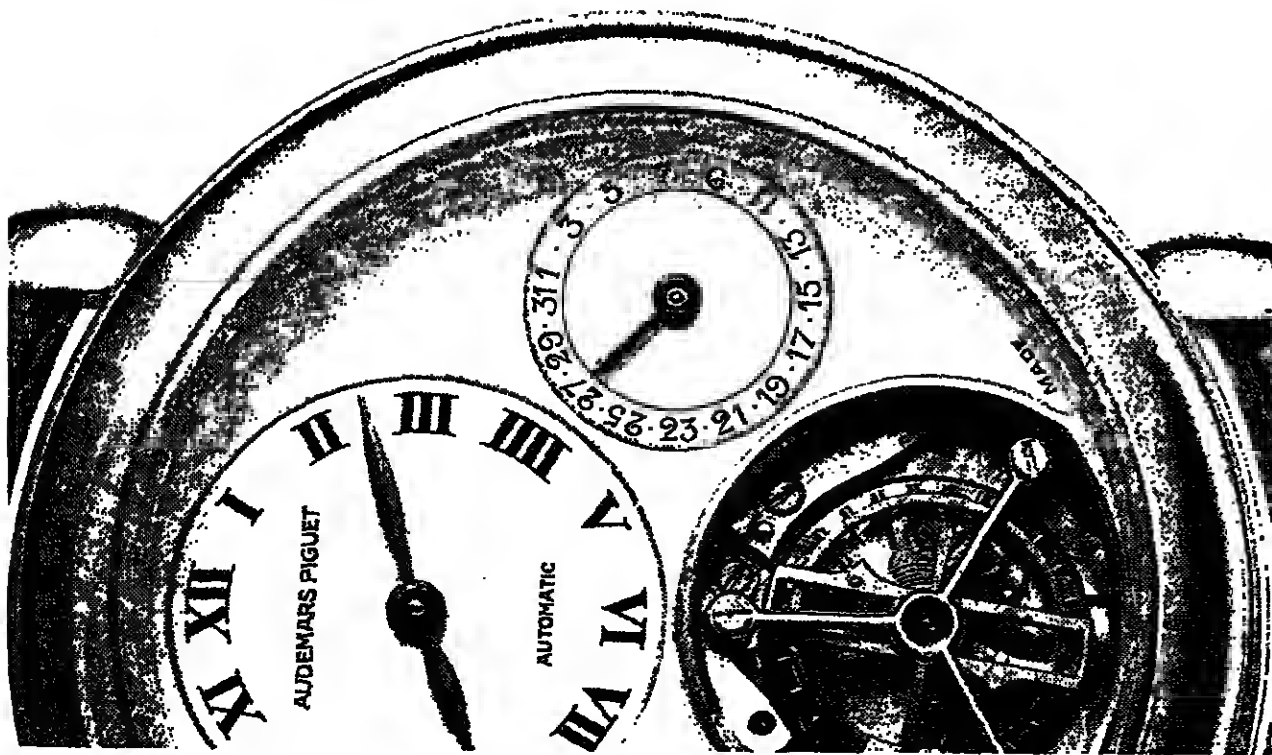


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## LETTERS TO THE EDITOR

Number One Southwark Bridge, London SE1 9HL

We are keen to encourage letters from readers around the world. Letters may be faxed to +44 (0)20 5838 (please not fax to 'line'). e-mail: letters.edi@ft.com Translation may be available for letters written in the main international languages.

## Pressure on retailers over sweatshops overdue

From Mr Neil Kearney.

Sir, It is difficult to feel sympathy for US retailers under pressure from Secretary of Labour, Robert Reich, to monitor the working conditions under which the garments they sell are produced ("Power of publicity turned on America's sweatshops", December 2/3). Had the heat been turned on a little earlier, there might now be a lot less lawlessness in the US garment industry where 10 manufacturers in breach of labour legislation.

Reich's "white list" of companies retailing "clean"

clothing is long overdue. Claims by retailers that they are unaware of the conditions under which garments are produced defy logic. These same retailers monitor production, quality and delivery at plant level.

Hopefully, the Reich proposal will be extended to the sourcing of garments worldwide. Retailers must be forced to take more care in their choice of supplier and pay greater attention to the conditions under which garments are produced. Were they to do so, child labour, unsafe and unhealthy working conditions and gross

exploitation in the industry would be greatly reduced almost overnight.

Claims by the retailers that this would be extremely costly and would fall on consumers is simply untrue.

For example, the labour cost in a shirt manufactured in El Salvador for sale in the US at around \$35 is a mere 10 cents.

Workers could be given the right to join unions, to bargain collectively, to work in a hazard-free environment and to enjoy the protection of El Salvador's labour law and have a significant increase in earnings without a cent being

added to the retail price of the shirts they produce.

The excesses of many retailers have become so great that only action by governments can redress the situation and ensure that all garments marketed are clean. More power to Robert Reich and may his European counterparts please soon copy.

Neil Kearney,  
general secretary,  
International Textile, Garment and Leather Workers Federation,  
Rue Joseph Stevens 8,  
B-1000 Brussels,  
Belgium

## Three-tiered EU is the answer

From Mr Adam Szarf.

Sir, One solution of the future relationship between the inner and outer cores of the European Union (Letters, December 5), consequent on the creation of the monetary union centred around France and Germany, might be the adoption of a three-tier membership of the EU.

One group of outer countries - unable or unwilling to meet the convergence criteria of the Maastricht treaty - would accept the discipline of a modified EMS, with exchange rates determined by mutual agreement with the inner core institutions.

Another group, bent on preserving undiluted national sovereignty, would be allowed to do so, but it would face a possibility of counter-measures applied against it, limiting undue trade advantages of one-sided devaluations.

The nature of such counter-measures, and their *modus operandi* would be a matter that should be addressed by the forthcoming intergovernmental conference next year.

This would facilitate the choice facing potential member countries, and would, incidentally clarify some questions recently posed by John Major, the UK prime minister.

Adam Szarf,  
21 Av de la Renaissance,  
1040 Brussels,  
Belgium

## Best practices overlooked at Barings

From Mr Simon Barrow.

Sir, You argue ("Lesson trial", December 4) that "above all else, the Barings case has made clear that the threat of criminal conviction is no substitute for internal management controls". Could I add that "and no substitute either for best human resource and communication practice". This aspect has been glaringly overlooked throughout the entire Barings debacle. The Bank of England's report made no reference to it. That was a document about the absence of monitoring and measurement. It was a document based on the assumption that, if management of a complex business runs by the book, all will be well. The City needs to realise there is

much more to it than that.

Here are the questions that the Bank of England and others, including the press, should have been asking:

- What was Leeson's job description and what competences was he expected to have?
- During the recruitment process, what aspects of Leeson's previous experience were deemed to make him suitable for this work?
- What kind of appraisal system existed and what, if any, action emerged from it?
- What were the Barings values in the UK and what prevented those being found in the Singapore office?
- How did the people in Singapore know what behaviour Barings expected of them?

This substantial and complex business seems to have been run without the aid of any fundamental employee research. The Barings management was flying blind on the "soft" issues as well as the "hard" ones.

Management is surely about promoting standards of behaviour that prevent weaker players from even thinking of actions that might lead to a long jail sentence and a distress sale of "damaged goods". New attitudes to best practice need to start at the top.

Simon Barrow,  
chairman,  
People in Business,  
10 Bowling Green Lane,  
London EC1R 6ED,  
UK

## EU-wide regulation of telecoms not feasible

From M. Guy du Parc Braham.

Sir, A single regulator for a single market in telecommunications, as suggested by Mr Derek Coggrave (Letters, November 29), will not work for some years after the planned 1998 EU liberalisation, because:

- National frameworks of

competition law vary between member states as well as from the competition provisions of the EC (sic) treaty.

Telecommunications markets at different stages of development require different regulatory approaches. For example, the UK regulator, OfTel, is considering how to

withdraw from the kind of detailed regulation which has not yet started in most of the rest of the EU.

Guy du Parc Braham,  
Price Waterhouse Corporate Finance,  
No 1 London Bridge,  
London SE1 9QL, UK

## Changing ticket to ride easy on Eurostar

From Malcolm L. Coates.

Sir, Amos Cohen's article "Train at the centre of a love-hate affair" (December 4) refers to the irritating problem of changing a supposedly flexible first-class Eurostar ticket.

I have had to do this twice in as many months and simply walked into the British Rail travel centre here in central Paris. I was neither obliged to buy a new ticket nor claim a refund.

In fact, the operation lasted

about two minutes and was carried out courteously and smilingly.

Malcolm L. Coates,  
5, rue Ampere,  
75017 Paris,  
France

## Sensible to suggest that Nigeria will need international support

From Tunji Fahn.

Sir, It is unfortunate that Baroness Williams, the respected former UK cabinet minister and now a Harvard professor, should jump on the anti-Nigerian bandwagon sweeping the UK following the implementation of the judgment of a military court in Nigeria. Your editorial "Help

Nigeria" (November 24), put forward the sensible statement that "Nigeria's problems are susceptible to no quick fix. The country will need international support and assistance long after outrage has abated."

While opinions may differ as to the quality of justice in Nigeria, we do not require lectures by countries on what

action should be taken by the lawful government of our country in respect of dissidents. Whatever the chattering classes in Britain may think, the military government in Nigeria has proceeded according to its own light and those who continue to decry and condemn the country must realise that

whatever sanctions that may be imposed will serve to galvanise the country in its move to complete industrialisation of its economy.

Tunji Fahn,  
convener, Nigerian Community Trust (UK),  
30 Ambleside Road,  
London NW10 3UJ, UK

## Personal View · Claudio Haddad

## Real plan to end inflation

The success of Brazil's economic reforms may not last without further political action

The introduction in July last year of the new Real currency appears to have led to a sharp improvement in Brazil's economic outlook.

It has brought inflation down from 40 per cent a month before the launch of the Real plan to an annualised rate of 12 per cent.

The reduction in inflation - which has greatly increased disposable income, especially among the poorest - is the longest-lasting decrease since Brazil began launching stabilisation plans in 1986.

At the moment, there are no discernible inflationary pressures, aggregate demand is contained, the trade account is balanced and the central bank has accumulated \$50bn in foreign reserves.

But it is too soon to say that Brazil has banished inflation. Much of the success of the Real plan can be attributed to high interest rates: while prices have risen 31 per cent since July 1 last year, the interbank rate would have increased Real deposits by 76 per cent in the same period.

Unless interest rates can be eased, there is a danger that inflationary pressures will return, undermining the government's reforms.

So far, the very high interest rates set by the central bank have led to a 3 per cent appreciation of the Real since July last year, which, coupled with stringent credit controls, has capped demand.

They have also encouraged a sharp increase in capital inflows - mainly to finance trade - which has bolstered the country's foreign currency reserves.

The interest rate overkill can be explained as a precaution to reduce inflationary pressures - probably justified in the early stages of the Real plan. But it also reflects the fact that government spending is out of control.

Although tax revenues will reach a historic high this year at 30 per cent of gross domestic product, the government deficit will reach more than 7 per cent of GDP.

This deficit comes partly as a result of a substantial increase in current expenditure -

Unless interest rates can be eased, there is a danger that inflationary pressures will return, thereby undermining the government's reforms

fuelled by wage increases for government employees.

Real wages of federal government employees have risen from R\$18bn in 1993 to R\$38bn this year, and are likely to exceed R\$40bn next year.

But high interest rates have also contributed by putting up the interest burden on government debt, which has increased from R\$63bn in January last year to R\$140bn.

This is a classic situation of an overly restrictive monetary policy to compensate for an expansionary fiscal policy - and it is unsustainable.

Real interest rates much above the marginal return on capital place a heavy burden on the private sector, and cut investment to the bare minimum necessary to keep companies alive.

The resulting defaults are hitting the balance sheets of the commercial banks.

For the moment, these pressures are muted. The combination of increased currency reserves and high interest rates keeps attracting foreign capital, which finances the current account deficit.

which is based on his success in stabilising the economy.

However, there is no immediate relief in sight coming from the fiscal side. Additional spending is already planned to bail out some private and state-owned banks, refinance farmers' debts, subsidise sugar producers and even to resurrect the moribund programme to replace oil with fuel based on alcohol.

And although progress has been made in privatising state-owned companies in industries such as electricity and telecommunications, receipts will be slow to come and cannot be counted on to balance the government accounts.

Since there is no immediate danger to the Real plan, the government still has time to act. One course of action would be to ease fiscal pressures by pressing for fast approval of the government's administrative reforms to allow a reduction in the wage bill at federal and state levels.

Another step would be to put pressure on the states to force them to fund themselves at the expense of their local taxpayers instead of relying on federal transfers.

These are hard political choices but they are better than a return to inflation. What is fundamental is that the government should realise that the present success of the Real plan will not last, and that inaction will lead to disaster. The clock is ticking.

The author is chief executive of Banco de Investimentos Garantia, the Brazilian investment bank.



## ARTS

Television/Christopher Dunkley

## Some real-life eye-openers

**D**o we really have to spend any time on Inspector Morse: The Way Through The Woods? It was competently made, though too long, and looked just like the previous Inspector Morse programmes. And what about all this Beatles stuff which has already received such quantities of publicity: is any of it telling us anything we did not already know? The early days in Hamburg, Ringo's auntie, the sessions at The Cavern, the Decca executive who decided not to give the group a contract - is this supposed to be news? Or an effort to boost bank balances which are down to their last few tens of millions? It is bad enough that television devotes so much time to this sort of unoriginal, uninformative, uninspiring material. What is worse is the readiness of newspapers to give vast amounts of space to promoting it before transmission, as though it were important and the papers were grateful handmaidens to the great god television.

Let us consider instead some of the programmes shown during the past week which have told us something we did not already know. The Channel 4 series *Secret Lives* is developing a wonderful line in iconoclastic biography. This is all the more refreshing given that television's usual line is hagiography (see that Beatles series, for instance). Last week director Madonna Benjamin and producer John Goddard turned the revisionist spotlight on Marie Stopes, birth control pioneer and author of *Married Love*, a sex manual which, when I read it in 1959, still seemed progressive and daring even though it was then 41 years old.

This programme showed that good old gutsy tell-it-like-it-is Marie wrote the book while still a virgin. It seems that she acquired her expertise while searching in the British Museum for evidence to support her claim of non-consummation of her own marriage. That was a bit of an eye-opener, but there was worse to come. It turns out that she was a megalomaniac and a bully, with beliefs on racial purity that would have delighted Adolf Hitler. Not only did she believe in eugenics, she forced her son to wear vast woolly knickers for fear that conventional garments would harm his genitals, and hysterically opposed his choice of wife when she showed signs of "disability": she wore glasses. It was no surprise to hear that Muriel Spark, challenged by this harpist for leadership of the Poetry Society, said she wished that Marie Stopes' mother had thought of birth control.

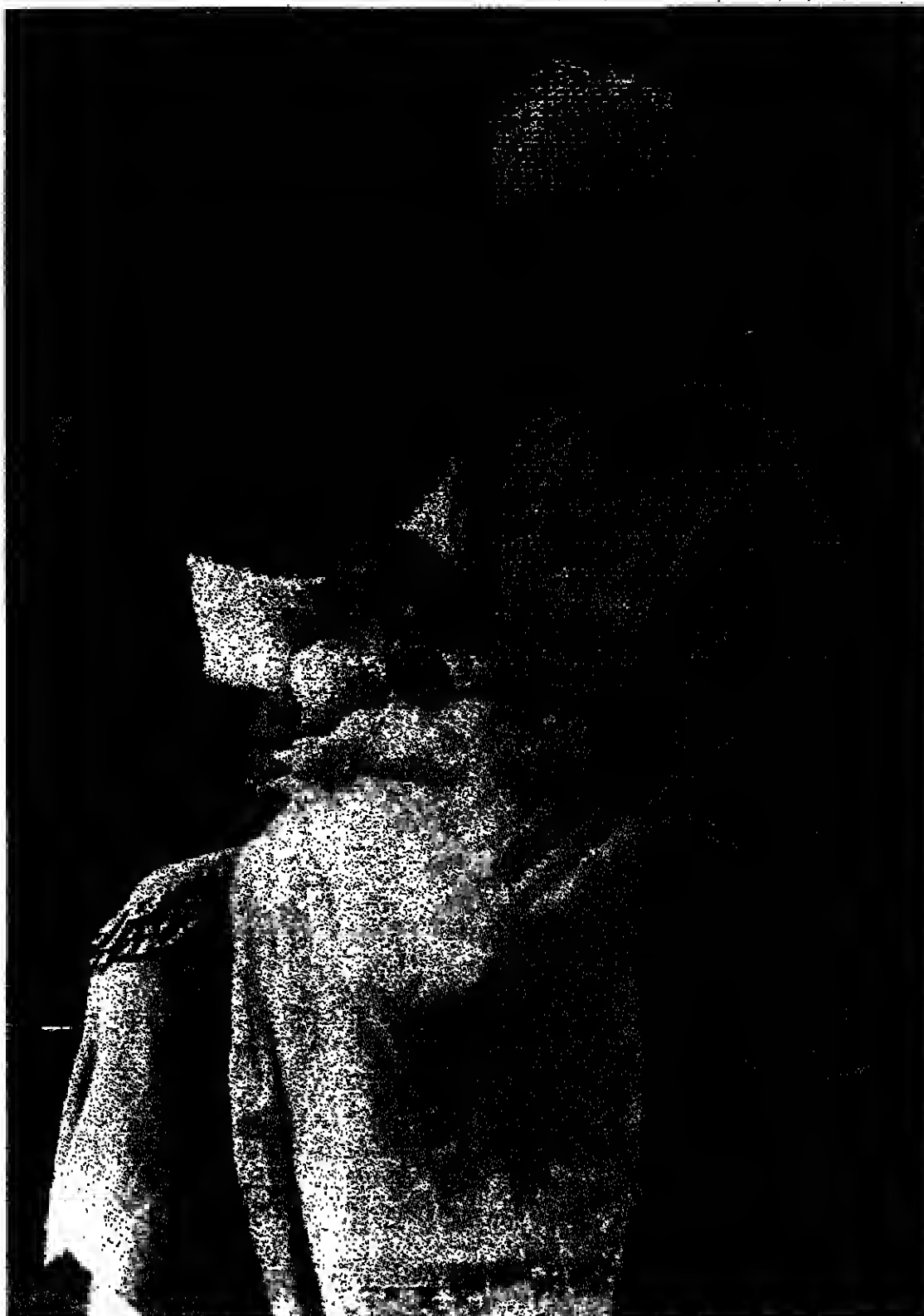
Like several previous episodes in *Secret Lives* that was eye-opening. So is *The Factory* on Channel 4, a fly-on-the-wall series made by Paul Watson,

producer of *The Family and Sylvia Waters*. This is less sensational, yet possibly the best thing Watson has ever done. Perhaps people from the gas fire factory in Liverpool will tell us it is unfair, yet they must, presumably, have agreed to have the cameras in. The entire series has looked like one of those "How not to do it" training films. If you showed it to the Japanese they would think it was a sitcom. The workers' canteen has been closed. The lavatories are appalling. The nurse has been dismissed. Practically the entire workforce seems to suffer from repetitive strain disorders of one sort or another. Television tells us so little about one another's working lives that it is hard to know whether this factory is a lone survivor from a Dickensian past, a pretty typical example, or something in between. Even if it is unique, which seems highly unlikely - this is a valuable series.

You would not apply the word "valuable" to *Eurotrash*, yet there is no denying its originality. In the beginning - presented by Antoine de Caunes, ze man wiz ze verre theek (yet undeniably splendid) accent - it was a European television version of the old weekly tabloid *TV Bits*, full of items that could be headed "Just Fancy That", with a leaning towards the titillating.

Now, presented by de Caunes in harness with Jean-Paul Gaultier, it operates under the title *Eurotrash: The World Tour*, goes anywhere, and concentrates almost exclusively on sexual oddities. For Friday's edition (meaning the producers, not de Caunes and Gaultier who froot the whole thing from a studio) went to Japan to show us the Festival Of The Penis, a TV weather girl with flip-up metal bra cups, and a dog-dating agency. The tone is mocking and much of the material trivial, yet in half an hour of *Eurotrash* you are likely to hear ten times as many things you did not know as in all the recent Beatles programmes laid end to end. You are likely to laugh a lot more, too.

Assignment on BBC2 provided a disturbing report on small town America. A visit to Kalspell in Montana revealed a real-life *Twain Peaks*. On the one hand there are the religious nutters who fire-bomb the abortion clinic and send their children to schools where they shoot horns and into the maths lessons. On the other hand there are growing numbers of incomers who are retreating to the Rockies from hotspots in California and elsewhere and who tend to be liberals, feminists, and homosexuals. This is the sort of place where many believe passionately in the famous misinterpretation of the "right to bear arms" phrase in the constitution and belong



Marie Stopes, the birth control pioneer, with her son: according to Channel 4's *'Secret Lives'* she was a megalomaniac and a bully and wrote *'Married Love'* whilst still a virgin

to private militias. They see attempts to tighten up the gun laws as preparation for the UN (yes really, the United Nations) to take over the US.

Some viewers will know the country well enough to be familiar with attitudes in the boondocks without a programme such as this, but for most of us it will surely have been illuminating. Much the same can be said, I suspect, for Irvine Welsh, subject of *In Your Face*, also on BBC2. Having

seen his books (*Trainspotting*, *The Acid House*, *Marabou Stork Nightmares*) stacked high in the shops, and read the profiles of him, we are aware of his existence but not too sure about the sort of thing he writes. This programme made it abundantly clear: a latterday William Burroughs, capable of conveying the experience of the Scottish junkie from the inside, Welsh himself appeared, explaining that "drugs of choice" changed in the 1980s

from the legal (alcohol and tobacco) to the illegal (heroin and crack). And critics and admirers appeared, explaining why they find his work unusual and compelling. It would take a stubbornly resistant viewer to watch this programme and at the end not want to sample at least one of Welsh's books.

Is there anybody who could be similarly turned on to the Beatles by all those documentaries?

Theatre/Alastair Macaulay

## Rare Shaw revived

In 1933 and at London's Arts Theatre in 1945, Sam Walters' new staging at Richmond's Orange Tree Theatre may be London's first public production of it. Shaw did not have in mind a theatre where the audience sits on all four sides of the stage, and where there is virtually no scenery. In the event, however, this setting enables us to concentrate all the more on Shaw.

He was, among other surprising things, a multiculturalist. Modern audiences at first may be nervous when they hear some characters use the words "nigger" and "Jew boy", but it soon becomes clear that Shaw's only prejudice is against Eurocentricity.

"Polygamists form the vast major-

ity of the subjects of the British Empire," Prola, the beautiful local earth-mother type, tells the young simpleton. "Try to remember that, and that you are not in Clapham." Prola and Hyering are two of six adult characters who have reared four divine scoundrels, Maya, Vashiti, Janga and Katchin who are physically perfect, but with no scrap of moral conscience. Young Hammingway has only too much conscience: a true holy fool. Perhaps, with Maya and Vashiti, he will breed superchildren of a yet higher order; and so Act One ends.

But Shaw was as sceptical about eugenics as he was about everything else. *The Simpleton of the Unexpected*

*Isles* will prove more entertaining if you do not know what happens. The entertainment has a serious dimension. As always, Shaw is engaged with what is the best way to live. We assume at first that *The Simpleton of the Unexpected* is a kind of Utopia: we realise eventually that they are the whole world. Hugo Hyering's wife constantly trots out the catchphrase "Let life come to you"; she does not always mean it, but Shaw does - except that he also believes in the reverse, in letting yourself come to life.

Kate O'Mara plays Prola. There is so much more to say about her figure and her maquette than about her acting. "Surprise and wonder are the very breath of my being" are not

words that ring true from a woman who looks like the prize product of a whole team of hard-working beauticians.

Raad Rawl brings simple dignity to the role of Prola, and the fresh-faced wide-eyed Christopher Staines is well cast as the simpleton. "I am weak-minded and lose my head very easily," he says in an adorable speech.

Some of Shaw's weaknesses are apparent. His brand of feminism led him, for example, to make Prola rather too obvious and simple a super-earthmother; and, the charming artifice of the play's talk keeps it always in Never Never Land. And so what? I do not mean it entirely kindly when I call *The Simpleton* a harmless play; not I am very glad to have seen it. Shaw's weaknesses are much more admirable than most playwrights' virtues.

At the Orange Tree, Richmond, until January 27.

Concerts/David Murray

## Solti honours Bartók

**S**ir Georg Solti's round of Bartók at the Barbican concluded last Sunday, but its peak came on Thursday with *Duke Bluebeard's Castle*. This extraordinary one-act opera usually goes well in a concert performance; the "action" is entirely psychological, and fully rendered - in all its sinister ambiguity - by Bartók's searing score.

As Bluebeard, Solti had the Hungarian bass László Polgar, a brooding presence with a noble voice, equal to any challenge from the large orchestra (here the London Symphony in top form), perfect in this role. Julia Varady's Judith was brave and intelligent. Around them, Solti spun a glittering web, fluent and impassioned beyond the norm.

In this early masterpiece (first drafted in 1911, and Bartók never wrote anything much like it again) the music is laid out in sections, like successive panels of a frieze, and that is most often how conductors play it. With the boldness of long experience, Solti swept many distinct sections up into great dramatic curves: there seemed to be more long-breathed spans than one had ever realised. Sometimes his intuitions crossed the strict letter of the score, but who would argue? This was an electrifying performance.

Enterprisingly, the Barbican had unearthed a Michael Powell television-film of the opera, made at Salzburg in 1964. Sadly, it proved on Sunday to be no great shakes: good soloists (Norman Foster and Ana Raquel Satre) all too obviously dubbed, over a dull orchestral

reading that was ill-recorded, shrill and choked. Visually, there was one small, irrelevant trission when swords stabbing toward Judith from all round the frame suddenly recalled Powell's *Peeping Tom*.

Otherwise, the film combines abnormally intrusive décor with Hollywood-stagey handling of the principals. The text is credited to Béla Balázs, but the "text" Balázs - who later became an important film-theorist - gave Bartók included not only the words but a detailed visual scenario, stark and plain: Powell's arty mess would have made him ill.

András Schiff figured in both of these Solti concerts: in the second of Bartók's piano concertos on Thursday, and for Sunday's chamber-music concert his exuberantly inventive Sonata for two pianos and percussion, with young Dénes Várjon as partner and Solti as self-effacing conductor. In both works Schiff's light-fingered touch and agile wit, which put an off-line spin on many a phrase (nicely echoed by Várjon), were charming.

I confess an unshakable loyalty, however, to the Bartók's own (Bartók and his second wife's) reading of the Sonata, which they deliver firmly, evenly and rather bluntly, though with robust good humour. The vital structure emerges better without local distractions. This is not Romantic music, nor is the second Concerto - in which, incidentally, Solti and Schiff often tended to part rhythmic company.

Chamber-concert sponsored by Mrs Jackie Rosenfeld.

Opera

## A static 'Aida'

**N**ew just a year and a half ago, Elijah Mooshinsky's aerobic, all-purpose production of Verdi's opera has already had several disparate casts. The singers the Royal Opera engaged for it kept dropping like flies. Partly as a result, his *Aida* has not yet enjoyed a strong, consistent team of soloists who could justify Mooshinsky's budget-wise rejection of the usual grandiose pomp. The latest cast is pretty disparate too, though it has its fine moments.

Daniela Gatti conducts an instantly up-tempo *Aida*, indifferent to poignant sentiments of the preludes but attentive to the urgencies of the action. His soloists are another motley crew. The American tenor Michael Sylvester delivers a mature, full-hearted Radames, lyrically unimpressive in "Celeste Aida" but virile and musical later on. Like most tenors, he is not flattered by Covent Garden's flat acoustic; we only began to appreciate him properly when he had a front-stage backdropped close behind him.

As Amneris, Nina Terentiev again sings her Italian *d la Russe*: guttural, exciting and quite unimpeachable, except in cries of "Amore!" She has to wait for the Act 3 scene to exploit her grand mezzo range. Simon Estes, the black American *Heldenbarbar* whom we know already in Wagner roles,

makes a taut, forceful Amorusso. The high priest Pater Rose exerts a pleasant, cultivated bass where something blacker is *de rigueur*.

In *Aida* several characters can be as apt enough, so long as they seem to live and breathe. That, however, requires palpable interaction, beyond what the rehearsal-schedule seems to have permitted. The new *Aida*, the American star Sharon Sweet, is a case in point (undimmed by any trace of an Ethiopian tint, probably through "p.c." sensitivity winning over dramatic sense). A large soprano in both senses, she moves with dignity and extreme decorum; expressive gestures need slow, careful planning and execution, and are therefore rather infrequent.

Watching *tableaux vivants* may have been like this. Any spontaneous feeling is represented decorously, in naive semaphores, and too late to matter: too late to find any frisson in her confrontation with Amneris, or in the crucial set-to with Radames. Miss Sweet gives good concertaria, but she is no operatic actress. We had to be content with the incidental delights of her musically art, strong-voiced if not remarkably beautiful. There is more to *Aida* than that.

D.M.

At Covent Garden until December 30.

## INTERNATIONAL ARTS GUIDE

## AMSTERDAM

**CONCERT**  
Concertgebouw  
Tel: 31-20-5730573

● Radio Kamerorkest: with conductor Peter Eschberg, tenors Peter Hall and Valery Serkin, basses Gert-Jan Alders and Jan Aerts, and Maria Fabian on cymbals perform works by Stravinsky, Beethoven, Berlioz, Kodaly and Schubert; 8pm; Dec 9

**EXHIBITION**  
Stedelijk Museum  
Tel: 31-20-5732911

● Metz & Co.: De creatieve jaren: this exhibition focuses on the "department store of the avant-garde" Metz & Co. Between 1920 and 1960 several architects, furniture designers and artists were commissioned to create products for this firm; from Dec 9 to Feb 18

## BERLIN

**CONCERT**  
Komische Oper  
Tel: 49-30-202600

● Orchester der Komische Oper: with conductor Lothar Zagrosek

perform works by Stravinsky, Hindemith and Bruckner; 8pm; Dec 7

**Konzerthaus**  
Tel: 49-30-203092100/01

● Berliner Sinfonie-Orchester: with conductor Matthias Jung, the Dresden Kammerchor and tenor Markus Brucher perform Britten's "Saint Nicolas" and Dostoevsky's "Die Weihnachtsgeschichte"; 8pm; Dec 9, 10, 11

● Philharmonie & Kammermusiksal  
Tel: 49-30-254880

● Berliner Philharmonisches Orchester: with conductor Claudio Abbado and pianist Maurizio Pollini perform Brahms' "Piano Concerto No. 2" and R. Schumann's "Symphony No. 3"; 8pm; Dec 7, 8, 9

## BRUSSELS

**CONCERT**  
Palais des Beaux-Arts  
Tel: 32-2-5078466

● Koninklijk Concertgebouworkest: with conductor Gennady Rozhdestvensky and cellist Yo-Yo Ma perform Dvorak's "Cello Concerto in B minor" and Prokofiev's "Symphony No. 5"; 8pm; Dec 9

## CHICAGO

**EXHIBITION**  
Museum of Contemporary Art  
Tel: 1-312-280-2660

● Andres Serrano: Works 1983-1993: the first major mid-career retrospective of Serrano's large-scale Cibachrome photographs, featuring more than 50 works created during the last 10 years. Serrano's work often examines controversial subjects

such as religion, racism, homelessness and death; from Dec 9 to Feb 4

## COPENHAGEN

**DANCE**  
Det Kongelige Teater  
Tel: 45-33 14 10 02

● The Triumph of Death: a choreography by Flemming Flindt to music by Thomas Koppel, performed by the Royal Danish Ballet. The ballet is based on Ionesco's play "Jeux de Massacre"; 8pm; Dec 8

## FRANKFURT

**THEATRE**  
Schauspielhaus  
Tel: 49-69-21237444

● Heidenplatz: by Bernhard. Directed by Peter Eschberg and performed by the Schauspiel Frankfurt; 7.30pm; Dec 7, 8

## HANOVER

**THEATRE**  
Niedersächsisches Schauspielhaus  
Tel: 49-511-1886146

● Ivanov: by Chekhov. Directed by Hartrut Wickert and performed by the Niedersächsisches Schauspiel (in German); 7.30pm; Dec 7

## LONDON

**AUCTION**  
Sotheby's; Parke Bernet & Co.  
Tel: 44-171-2401200

● The Dr Otto Schäfer Collection Part IV - The Jean Fürstberg Collection of 18th-century French Books: the fourth sale from the

library of book collector Dr Otto Schäfer comprises the collection of 16th and early 18th-century French books which Dr Schäfer acquired en bloc from his long-time friend and fellow bibliophile Jean Fürstberg in 1974. Highlights of the sale include Charles Hersent's "Optati Galli de cavendo schismate", published in Paris in 1640. Cardinal Richelieu ordered all copies of this book to be burned, because it described the power struggle between the French and Roman churches; 10.30am; Dec 7, 8

**CONCERT**  
Purcell Room  
Tel: 44-171-9604242

● Klezmer Swingers: Wallace Fields, Ron Findon, Alan Berlyn, Murray Salmon and Malcolm Bell trace the cultural development of Jewish music from the dawn of Odessa to the speakeasies of New York in the 1920s; 7.30pm; Dec 7

Royal Festival Hall  
Tel: 44-171-9604242

● The London Philharmonic: with conductor Alexander Lazarev and pianist Nikolai Demidenko perform Rimsky-Korsakov's "The Story of Tsar Saltan", Prokofiev's "Piano Concerto No. 2" and Liszt's "Les préludes"; 7.30pm; Dec 8, 15

Wigmore Hall  
Tel: 44-171-9352141

● Gabrieli Consort & Players: with conductor Paul McCreesh perform works by J.S. Bach; 7.30pm; Dec 7

**DANCE**  
Royal Opera House - Covent  
Garden  
Tel: 44-171-2401200

● The Royal Ballet: perform the choreographies "Apollo" and "Duo Concertant" by Balanchine, "Sideshow" by MacMillan and "Fearful Symmetries" by Page; 7.30pm; Dec 7, 14

## EXHIBITION

Whitechapel Art Gallery  
Tel: 44-171-5227680

● Emil Nolde: exhibition of the work of the German Expressionist Emil Nolde (1867-1956). The display contains paintings, watercolours, drawings, prints and applied art objects, and takes in the whole range of Nolde's career and themes, including his symbolic landscapes and religious scenes, his depictions of the cabaret and city life, and his interests in the erotic and the grotesque, in primitivism and race; from Dec 6 to Feb 25

## LOS ANGELES

**DANCE**  
Wadsworth Theater  
Tel: 1-213-825-2101

● Nederlands Dans Theater 3: perform choreographies by Kylian; 8pm; Dec 8, 9

## NEW YORK

**CONCERT**  
Avery Fisher Hall  
Tel: 1-212-875-5030

● I Musici: perform Christmas Concert of the Italian Baroque, including works by Corelli, Manfredini and Vivaldi; 7.30pm; Dec 10

**EXHIBITION**  
The Metropolitan Museum of Art  
Tel: 1-212-879-5500

● Haute Couture: a technical examination of the quality and properties of haute couture, using The Costume Institute collection. Designers from the House of Worth to the present are included in this exhibition intended to highlight couture detail and tailoring;

from Dec 7 to Mar 24

## PARIS

**CONCERT**  
Salle Pleyel  
Tel: 33-1 45 61 53 00

● Orchestre Symphonique Français: with conductor Laurent Pottier and pianists Michel Beroff, Jean-Philippe Collard, Gabriel Tacchino and Bruno Rigutto perform piano concertos by J.S. Bach; 8.30pm; Dec 11

## SALZBURG

**EXHIBITION**  
Rupertinum - Salzburger  
Landesammlungen  
Tel: 43-662-80422336

● Die göttliche Komödie: exhibition of some 100 works produced by Markus Valizza in recent years; from Dec 7 to Feb 18

## VIENNA

**CONCERT**  
Konzerthaus  
Tel: 43-1-7121211

● Mara Zampieri: gala performance by the Italian soprano. With the ORF-Symphonieorchester conducted by Alexander Rahbari; 7.30pm; Dec 7

## WASHINGTON

**CONCERT**  
Terrace Theater  
Tel: 1-202-467 4600

● Muir String Quartet: with harpist Heidi Lehtwälder, violinists Peter Zazofsky and Wei-Pin Kuo, viola-player Steven Ansell and cellist Michael Reynolds perform works by Haydn and Brahms, and the premiere of Silver's "Harp Quintet (From Darkness Emerging)"; 7.30pm; Dec 7

## WORLD SERVICE

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الرياضيات



## González warns on EU plans for enlargement

By Quentin Peel and David White in London

The European Union has failed to prepare any strategy to deal with the looming prospect of up to 12 new member states, Mr Felipe González, the Spanish prime minister, warned yesterday.

All the remaining potential members from central and eastern Europe were expected to table their membership applications before the end of the year, to join the queue behind Cyprus and Malta, he said.

Political pressure for negotiations to begin by 1998 "will become irresistible", he warned in an interview.

"It is inconceivable that we should negotiate with Cyprus and Malta, and not with Poland or the Czech Republic," he said. "It makes little sense."

Mr González, who currently holds the six-month presidency of the European Union, was in London for pre-summit talks with Mr John Major, the British prime minister. He said almost all the new applicants would be attending the EU summit in Madrid next week, seeking a clear timetable for enlargement.

## Spanish PM says member states have failed to prepare strategy

"I am afraid we have no answer to that yet," he said. The current member states were "rather disconcerted" about the whole question of enlargement.

"Nobody has started to prepare a strategy for enlargement," he said. "There is no criterion for how we should go about the process." He warned that the process would certainly cost the existing member states more in terms of their budget contributions, although he insisted it would be less than many estimates.

"Enlargement will cost money, but much less than is said, and much more spread out over time, because there will be an adaptation process lasting 12 or 15 years," he said. "You cannot have the same budget for a union of 25 as you do for 15."

He said the 10 or 12 new applicants had a combined gross domestic product roughly the same as that of the Netherlands, or half that of Spain.

At the same time he warned that national parliaments would

refuse to ratify any enlargement deal, if too much of the burden fell on farmers and the Common Agricultural Policy.

Mr González said the agenda for the EU summit on December 15 and 16 included decisions on the transition process to the final phase of European economic and monetary union, including naming the future single currency.

He suggested a consensus might be reached on calling it the "Euro", as in Eurozone or Euro-rune, although he admitted to his own caution about that name.

"We have received hundreds of letters in favour of the Real," he said.

The EU leaders also have to give guidelines to next year's planned intergovernmental conference, which is supposed to agree on the next phase of institutional reforms of the union.

Report points EU on path to change, Page 2; EU pact beads off action, Page 3; This man's not for turning, Page 15

## Gingrich predicts crash if no deal on budget

By Christopher Parkes in Washington

US interest rates will rise sharply and stock markets crash if Congress and President Bill Clinton fail to strike a bargain on balancing the federal budget, Mr Newt Gingrich, speaker of the House of Representatives, warned yesterday.

Postponement would signal to the electorate that government had failed to grasp the best chance "in a generation" to balance the budget, he told a meeting of the American Medical Association in Washington.

Mr Gingrich was speaking as bipartisan negotiations aimed at breaking the deadlock entered their second week after an unsuccessful round of talks last week.

Warning of a "big downside" if talks collapsed, he said later that his claims of a violent reaction in financial markets reflected recent remarks by Mr Alan Greenspan, chairman of the Federal Reserve.

Mr Greenspan has consistently warned, in less apocalyptic terms, of negative consequences if the budget impasse turned into surrender in the effort to reach a balance. However, he has also pointed to conditions in bond and stock markets which reflect the underlying assumption among traders and financial strategists that a deal will be done.

The White House last week offered to accept many of the spending cuts proposed by the Republicans. But senior Democrats said a deal before Christmas was still unlikely, although it might then be clear if it would be worth continuing negotiations in the new year.

Although he did not mention a December 15 "deadline" when temporary federal funding is due to run out, Mr Gingrich yesterday appeared to suggest that it should be set aside while a concerted bid was made to reach a conclusion.

"The president and members of Congress ought to settle down right now... and we ought to stay as long as it takes to do our [budget balancing] job," he said.

Republicans involved in yesterday's resumed bipartisan negotiations said that they intended to try to attract support from a group of conservative Democrats, known as the Blue Dogs, and hopefully increase the leverage on Mr Clinton.

The 21 Blue Dogs have recently unveiled their own budget-balancing plan. Although they share the Republican goal of balancing the federal budget by 2002, they reject most of their tax-cutting proposals.

Mr Robert Dole, leader of the Republican majority in the Senate, has again raised the spectre of a government shutdown in the absence of a deal. The prospect would have to be faced, he said, in the absence of a serious offer from the White House.

## THE LEX COLUMN

### Eni takers?

The Italian treasury has not delivered the success it needed. With a string of further privatisations lined up, it was important that the sale of 15 per cent of Eni, the oil and gas giant, went well: that is why the treasury pitched the offer at the bottom of its indicative range, and sold only 15 per cent of the company. Yet caution has not been rewarded with a healthy after-market: on the contrary, the share price has dropped. True, the Italian market has fallen since the offer price was set. But this excuse is unlikely to cut much ice with institutions which thought they were buying an international oil company — or for that matter with Italian retail investors.

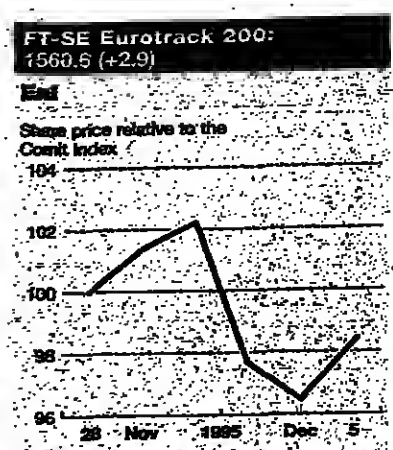
From one perspective, the offer price was attractive. On a cash-flow basis, it looked cheap compared with the big oil majors. But the comparison is deceptive. For one thing, Eni has long been a standard of the oil sector. And it is concentrated in a single market — making it more comparable to companies like Repsol, Elf and Total, with multiples at the low end of the sector, than to genuinely international businesses like Exxon or British Petroleum. On this basis, adjusting for Eni's high debts, the current price looks fair.

Of course, it is early days yet. If, for instance, the Italian political situation stabilises or interest rates are cut, it would help boost the share price. That in turn could rescue some of the battered credibility of the privatisation programme. But the treasury cannot bank on it.

### German banks

Westdeutsche Landesbank's plans for a co-operation agreement with Bank Austria reinforces the divergence of its strategy from other German banks. At a time when Germany's largest banks, squeezed by competition in their domestic markets, are all expanding overseas, WestLB is the only one trying to do so without making sizeable acquisitions. Others, like Dresdner, have been willing to pay high prices for investment banks and asset management groups in an effort to improve their return on equity, which is substantially lower than that of UK and US banks.

The danger for these German banks is not only that they could be overpaying. In the case of investment banks, earnings are unpredictable and the main assets, their staff, can disappear overnight. The clash of investment and commercial banking cultures is



notorious, hence the tardy integration of Morgan Grenfell by Deutsche Bank. In the long run, WestLB's strategy may prove the wiser. The move of its trading operations to London earlier this year may seem to have come rather late in the day. But WestLB has a reputation for market savvy unusual among German banks. It may not be buying companies, but it is buying people, for example a team of swaps traders in New York.

A link with Bank Austria would give WestLB extra muscle in eastern Europe, where it is already active. Intriguingly, both banks already have a tie with Italy's Cariplo. Unfortunately, none of this will help alleviate pressure in the domestic market.

### Siebel

At a time when manufacturers are tripping up with ominous regularity — yesterday's downturn trading statement from BTR is the latest example — Siebel has turned in another impressive set of results. The group's 11 per cent organic sales growth is impressive in the face of deflating and sluggish economic growth. Demand for its temperature and appliance controls has been hit by soft housing and car markets in the US. But Foxboro, which builds large factory automation systems and is growing at 20 per cent, more than made up for that. Meanwhile, the smaller diversified products arm is recovering after two years of restructuring.

Siebel's growth looks sustainable. Its markets are expanding as electro-mechanical controls for washing machines and the like are replaced by electronic ones. The group is moving

rapidly into the Far East and South America. And it is taking market share from semiconductor producers, which cannot afford its high research and development spending. Cash generation continues to be good.

Over the past two years, Siebel has defused worries over its accounting policies and management succession. Margins of 14 per cent will be hard to screw higher but their consistency since 1991 suggests the business is less vulnerable than most to another recession. After a 50 per cent rise this year, the shares command a 15 per cent premium to the market. At this level, a rights issue to fund a big acquisition looks tempting. But as a safe haven in the engineering sector, Siebel is hard to beat.

### Racal

The market's enthusiasm for Racal Electronics' purchase of British Rail Telecommunications (BRT) is fuelled by the rebalancing of the company towards communications network services should help restore its fortunes. BRT will help up Racal's communications muscle substantially, and should help it provide services more cheaply. Since only 20 per cent of BRT's capacity is currently being used, Racal will be able to compete aggressively for new contracts with large companies. Meanwhile, BRT's existing contracts provide a high quality of earnings, with operating margins of 10 per cent.

The deal will enhance earnings immediately, and should make a significant impact in 1997. The initial rise in gearing to close to 100 per cent should therefore not be a concern.

The positive outlook for Racal's rapidly growing communications network services should not, however, blind investors to the company's persistent difficulties in the area of data products. Racal's half-year results yesterday showed that this business remains in the red. The problem for Racal in the past has been that it has offered a broad range of rather undistinguished products which have had to be sold at discounts. The company claims that its new head of data products has focused the business on three main product areas where it can achieve market leadership; but such claims should be treated with scepticism. This market is full of pitfalls — as this year's disaster story from Gray Electronics has shown.

Additional Lex comment on Inchcape, Page 24

## Tighter collaboration urged for European defence groups

By Bernard Gray in London

The European defence industry must collaborate more closely and rationalise if it is to survive as a global competitor, according to a new report yesterday from a group of British MPs.

It urges the UK's Ministry of Defence and Department of Trade and Industry to take a more active role in promoting alliances between European defence companies. It also wants the UK government to take a more prominent part in creating an open defence market within Europe.

Rejecting the ministry's current, "even-handed" approach calling for co-operation with both the US and European industries, the report argues that Britain must ally itself with Europe.

Because the US does not accept foreign partners, except as subcontractors, the MPs say Britain has no choice but to work with other European countries to

maintain the capacity to produce complete complex systems, such as fighter aircraft.

The MPs from two powerful House of Commons committees, trade and industry and defence, also say it is essential Britain joins any future European armaments agency at its inception to help co-ordinate arms purchases and requirements between the large European states. Currently France and Germany are negotiating a bilateral arms agency which might exclude the UK.

The committees also criticise the passive approach of the defence ministry towards Britain's defence industry and the need for consolidation in Europe. They say the ministry needs to identify critical technologies which will underpin Britain's capability to manufacture high-technology weaponry. In deciding on which equipment to buy, the ministry should ensure that these tech-

nologies will be maintained.

The committees also claim that a healthy domestic defence industrial base is important to provide back-up for the armed forces in case of war. It cited modifications carried out to British equipment during the Gulf war to enable the army to fight in desert conditions as an example of how industry could help the ministry.

The ministry said it would comment on the report in due course. It has shifted its emphasis from purely competitive ordering towards considering the maintenance of an industrial base because the number of manufacturers is shrinking quickly.

Mr James Arbuthnot, the defence procurement minister, said recently that he did not think the MoD had a role to play in facilitating the rationalisation of the European industry.

Missile tenders invited, Page 8  
Editorial Comment, Page 15

## France edges closer to Nato's military wing

Continued from Page 1

"nuclear planning" groups of the alliance which have provided the forum for most gatherings at defence minister level.

The onus will therefore be on France's partners to provide some new institution in which Paris can participate without compromising its refusal to participate in the integrated military structure of the alliance.

French officials said the reason

General Charles de Gaulle quit the alliance's military command nearly 30 years ago remained — Paris was still reluctant to subordinate itself to military structures which were "undemocratic" and compromised its sovereignty.

However, with yesterday's gesture, Paris has signalled its willingness to take part in alliance structures when they are reformed.

For the past three years, France has attended Nato's

annual informal gatherings of defence ministers and a French general already attends meetings of Nato's military chiefs, though he comments only on subjects which directly concern France, such as peacekeeping in Bosnia.

Yesterday's decision will allow the French general to broaden the range of topics on which he speaks, but Paris will abstain from comment on issues such as military operations which do not include French troops.

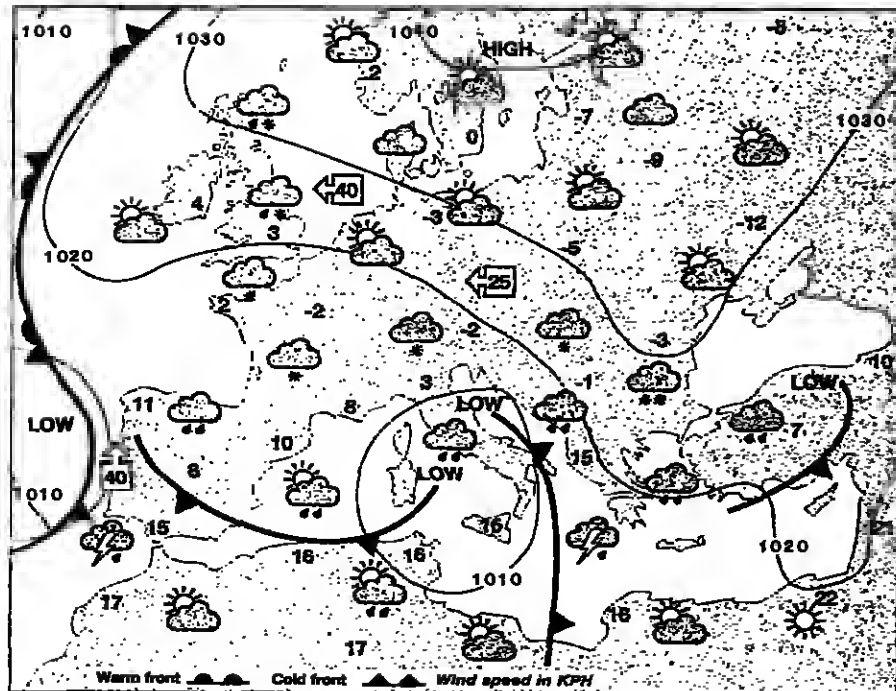
## FT WEATHER GUIDE

### Europe today

The Benelux, Germany and northern France will have moderate to fresh cold easterly winds with cloud and patchy snow and afternoon temperatures below freezing. Northern sections will also have sunny spells. The UK will be rather cloudy with snow or sleet in the east. Southern France and eastern Spain will have sunny periods. A frontal zone over western Spain and Portugal will produce cloud and rain. An active low pressure system will move from Italy into south-eastern Europe. Cloud and rain will affect Italy, Greece and the coast of former Yugoslavia. The Czech Republic and Bulgaria will have snow. Poland and Rumania will stay dry with sunny spells.

### Five-day forecast

A series of low pressure systems will remain active in the Mediterranean, bringing unsettled conditions from Spain to Greece. Northern parts of this continent will have sunny spells. Snow will occur in some places tomorrow. Temperatures will stay far below seasonal values, even below freezing.



Situation at 12 GMT. Temperatures maximum for day. Forecasts by Meteor Consult of the Netherlands

### TODAY'S TEMPERATURES

Maximum	Belling	fair	-1	Caracas	fair	30	Faro	rain	15	Madrid	cloudy	10	Rangoon	fair	32		
Cebu	Belast	rain	-3	Cardiff	cloudy	3	Frankfurt	cloudy	-1	Manila	showers	13	Reykjavik	cloudy	4		
Abu Dhabi	31	Belgrade	snow	-1	Chennai	rain	17	Geneva	rain	15	Moscow	cloudy	17	Rio	rain	28	
Algiers	16	Berlin	cloudy	-3	Cologne	cloudy	-2	Glasgow	rain	15	Manchester	cloudy	4	Rome	rain	12	
Amsterdam	10	Bermuda	showers	-24	Dallas	rain	28	Hamburg	cloudy	2	New Delhi	rain	20	S. Francisco	cloudy	15	
Athens	15	Bogota	cloudy	19	Delhi	sun	25	Helsinki	cloudy	-2	Osaka	rain	20	Seoul	sun	20	
Atlanta	12	Bombay	sun	32	Dallas	fair	8	Hong Kong	sun	28	Shanghai	thund	20	Singapore	thund	20	
B. Aires	22	Brussels	cloudy	-2	Delhi	sun	25	Hong Kong	sun	28	Stockholm	fair	-3	Taipei	sun	12	
Bham	cloudy	2	Budapest	cloudy	1	Dubai	rain	81	Honolulu	sun	21	Sydney	cloudy	24	Tokyo	sun	12
Bangkok	fair	31	Chennai	fair	0	Dublin	rain	4	Islamabad	rain	9	Toronto	fair	-2	Vancouver	showers	8
Barcelona	cloudy	10	Cairo	sun	22	Durango	rain	1	Jakarta	showers	31	Wellington	sun	22	Zurich	cloudy	-4
			Cape Town	rain	24	Edinburgh	rain	4	Jersey	rain	5	Winnipeg	cloudy	-4			
									Karachi	sun	21						
									Kuwait	sun	21						
									L. Angeles	sun	21						
									Las Palmas	showers	22						
									Limn	fair	23						
									London	rain	16						
									Luxembourg	sleet	3						
									Lyons	cloudy	-2						
									Madeira	thund	19						

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## INTERNATIONAL COMPANIES AND FINANCE

## EUROPEAN NEWS DIGEST

Price set for  
BESI offering

The initial public offering of the Netherlands' BE Semiconductor Industries (BESI), one of the world's leading suppliers of semiconductor assembly equipment, was priced yesterday at \$13, or Ft 20.94, a share. Global co-ordinator Morgan Stanley said the size of the offering had been increased to 9.6m shares from the 5m originally on offer, because of strong demand from investors.

The underwriters are also likely to exercise an over-allotment option of 1.4m shares because of the over-subscription. The sale raised \$125m for Berliner Elektro, a quoted German investment fund which retains a holding of 55 per cent. BESI will be listed in Amsterdam, Frankfurt, on Nasdaq and on Seaq International. *Antonia Sharpe, London*

## French airlines in deal

Air Liberté and Euralair, two of France's private airlines, yesterday announced an agreement aimed at strengthening their position ahead of the deregulation of European air travel. Air Liberté will receive Euralair's scheduled air routes. These include the routes between Orly airport in Paris, Madrid and Toulouse. In return Euralair will receive 10 per cent of Air Liberté and a seat on the board. Mr Lofti Belhassine, chairman of Air Liberté, said the agreement was part of the French aviation industry's consolidation. "There are too many small players at the moment. This is an important step towards a strong private player", he said. For Euralair, the agreement would allow it to focus on its business travel, charter and cargo activities. Air Liberté is also thought to be seeking to buy AOM, controlled by Crédit Lyonnais, the state-owned bank. *John Ridding, Paris*

## Danfoss profits ahead 60%

Danfoss, the Danish unlisted manufacturer of industrial components, yesterday reported sales in the year ending September 30 up 19 per cent to Dkr11.1bn (\$1.99bn), while pre-tax profits rose 60 per cent to Dkr886m. The group said employment rose by 2,320 to 17,130, of whom 7,800 were employed abroad. The board announced that Mr Jorgen Clausen, 47, whose father founded the company in 1933, was to become chief executive from April 1 next year in succession to Mr Henry Petersen. *Hilary Barnes, Copenhagen*

## Mövenpick sees advance

Mövenpick, the Swiss hotel, restaurant and food group, said it expected 1996 results to be above those posted in the current year. But it said 1995 net profit would be slightly below the year-earlier figure. Mövenpick said sales for the 10 months to October declined 3.4 per cent from a year earlier, with 3.2 percentage points due to negative currency effects. *AFX News, Adliswil, Switzerland*

## Generali optimistic

Generali, the Italian insurance group, said it expected 1996 results to be better than 1994. The company reported a 1994 net profit of L573.4m (\$945m). Generali said its parent premium income for the first nine months of the year was L1,672bn, up 8.3 per cent year-on-year. Life premiums increased 14.4 per cent to L3,345bn and damages premiums were 2.1 per cent higher at L4,326bn. *AFX News, Rome*

Ferruzzi Finanziaria said parent loss at the end of October rose to L225.6bn (\$140m) from L128.5bn at the end of June. Net debt stood at L1,981bn compared with L2,005bn at the end of June. *AFX News, Milan*

Générale de  
Banque to  
buy stake in  
Fimagest

Générale de Banque, the Belgian bank, said it had agreed to buy the 73.37 per cent stake held by Suez of France in the asset management company Fimagest for FF660m (\$131.8m), agencies report.

Générale de Banque added that since its unit Banque Parissienne de Crédit already held 3.74 per cent in the company, bringing the group's total stake to 77.11 per cent. Générale de Banque said the agreement would be submitted to the Belgian and French authorities for approval.

The estimated price was based on market assessment criteria for similar companies, the company's profitability and the size of the assets managed, it said.

As at the end of 1994, Fimagest's non-consolidated assets totalled FF55bn, its own funds were FF25bn, its net non-consolidated profit FF74.5m and its return on equity 34.32 per cent. Générale de Banque added it said the other main shareholders in Fimagest are Crédit Mutuel du Nord with 3.43 per cent, and staff and management with 17.37 per cent.

Générale de Banque added the acquisition would give it better access to France and allow it to diversify distribution channels. It said that as of end-1994, Fimagest managed FF41.6bn of assets in 137 investment funds, including those offered by Banque Parissienne de Crédit.

Suez said asset sales since August 1995 had reached FF3.9bn. The company also said it had sold its Tellit Direct Assurances unit to UK insurance group Sun Alliance, and confirmed it was cutting headquarters staff to about 80 from its current level of 185 and transferring its real estate assets into its Credit Suisse unit.

Suez said the holding company would concentrate its structures around its essential operations to aid its recovery. The holding company would limit its activities to strategic planning, financial support of its units, surveillance of the company's management and nomination of unit directors.

## Veba close to launching multimedia network

By Michael Lindemann  
in Essen

Vaha, the German energy-based conglomerate, said yesterday it expected to receive a licence within the next three weeks to connect 10,000 households to a multimedia network in the Ruhr region.

The move will underscore Veba's efforts to become the biggest telecoms operator in Germany, alongside state-owned Deutsche Telekom. The Ruhr project, dubbed Info-City, is designed to test the demand for a variety of multimedia services such as tele-shopping, said Mr Ulrich Hartmann, chief executive.

Veba also hopes to begin

operating a broadband telecoms cable between Bonn and Cologne. This is a pilot project designed to test the feasibility of linking the 35 regional studios of the ARD public sector television channel, a project for which Veba recently won the first licence.

Via, another energy-based conglomerate, said earlier this week that it had planned to operate a similar network.

Speaking about prospects for 1996, Mr Hartmann warned that Veba would not be able to maintain the strong growth rates seen this year because of a generally weaker economy. He was "confident", however, that the group's operating profits in 1996 would exceed the

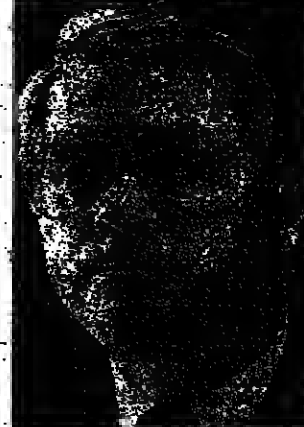
DM3.5bn (\$2.43bn) which the group is expected to report this year.

Several other German companies have indicated a slowdown in the specialty chemicals industry, but Veba said its Hils chemical subsidiary expected another good year.

The company said the slowdown in orders which the industry is experiencing was due to a sharp increase in the size of stockpiles this year.

The effects of this are likely to be felt until the middle of 1996 and business would then "stabilise at high levels".

Investments in the five years to 2000 will rise about 10 per cent to DM23.5bn, with around 41 per cent going to the group's



Ulrich Hartmann: warned of effects of weaker economy

## Clouds gather over Hungary's sell-off plans

Buyers may not be found for all the electricity companies, writes Virginia Marsh

The Hungarian government is scheduled to decide today on the tender for its 14 electricity companies. These are being sold off to western utilities as part of Hungary's sweeping privatisation plans for the energy sector.

However, not all the electricity companies may find buyers. The sales - the first of their kind in the former Eastern bloc - have been clouded by a tight timetable, regulatory and pricing uncertainties and what bidders describe as an unprofessionally managed tender process.

APV Rt, the state privatisation agency, received a total of 25 bids for the 14 companies - fewer than had been hoped for and below the average of four bids received two weeks ago for each of five regional gas distribution companies (GDCs), which are also being privatised.

A consortium of Bayernwerk of Germany, Electricité de France and Aare-Tessin, a Swiss utility, is understood to be the sole bidder for a 24 per cent stake in MVM, the core electricity company which will retain the national grid and Paks, the country's Soviet-designed nuclear plant. APV Rt received a further 14 bids for seven non-nuclear power generation companies, while there were 10 offers for the six power distribution companies.

MVM Group 1994 (bn forints)				
	Electricity	Heat	Other	Total
Sales	133.3	16.6	14.4	164.3
Costs	128.4	20.1	15.2	163.7
Operating profit	4.9	-3.5	0.8	0.6
Other incomes				11.8
Other expenses				23.2
Profit before tax				-10.8
Post-tax profit				-11.7
Paid dividend				-
Retained profit				-11.7

Minority stakes are being offered in the 13 companies which were hired off from MVM ahead of privatisation. However, simultaneous capital increases at power stations most in need of investment will enable buyers to take majority stakes in those companies.

A total of 26 western utilities purchased tender documents. As well as the consortium bidding for the core company, these included Germany's RWE Energie and PreussenElektra; PowerGen and National Power, both of the UK; Powerfin, a Belgian utility; ABB Energy Ventures, part of the Swiss-Swedish engineering group; and several US companies including Atlanta-based Southern Electric.

The Hungarian authorities had hoped to attract bids of at least book value for most of the companies, which had combined total assets of Ft982bn (\$6.14bn) at the end of last year. APV Rt, advised by N. M. Rothschild, received higher than expected bids for majority stakes in the five GDCs, the largest of which was sold last week to a consortium led by Italgas for \$172m, three times book value.

Top offers for the other GDCs ranged from two to four times book value with bidding dominated by state-owned continental utilities, some of which are also participating in the electricity sales.

No offers were received from US companies, although several pre-qualified, while British Gas, the only UK participant, put in bids well below the winners.

"Assets of this type just don't come up for sale very often and these are relatively small investments for continental utilities, some of which

are bulging with cash," says one London-based energy consultant. "They believe Hungary has made a commitment to liberalising the sector and are prepared to take a long-term strategic view. US and UK companies tend to be more constrained as they are private. They also appear to be more sensitive to political and other risks."

Soma UK utilities are displaying the same caution on electricity, with Midlands Electricity and Eastern Group among those which have decided not to bid due to an incomplete regulatory framework, including uncertainties over politically-sensitive price rises needed to make distribution companies profitable.

In this, however, UK companies are not alone. Several potential investors are believed to have scaled back both the number and size of their offers for the same reason.

"There is a lot still to be defined and if we win we will have to lobby hard and help shape future policies," says an executive at a utility which bid for a power generation company. "There are many risks and this will no doubt be reflected in the size of bids. But, in the end, we decided the risks were manageable."

Bidders say the tender process was poorly managed. APV Rt and its adviser, Schroders, the UK merchant bank,

made many last-minute changes to tender conditions. One western utility said it was still receiving amendments just one day before last Thursday's deadline.

Although generally welcoming the frequent changes made, even harder to comply with the tight timetable - offers were due 45 days after publication of the tender documents.

Despite the many problems and calls to postpone the sales, the Socialist government - which aims to complete privatisation by the end of 1997 - doggedly pressed on, partly due to pressure to provide Ft150bn (US\$1.12bn) in privatisation revenues for this year's state budget.

The authorities are also close to an agreement over the sale of a majority stake in Matav, the national telecommunications company, to Magyarom, the consortium of Deutsche Telekom and Ameritech, which bought 30.3 per cent of Matav for \$975m in 1993.

With the budget target already in sight, it remains to be seen how many electricity companies will be sold. The sales have attracted strong opposition from powerful lobbies in the industry and in the government as well as from the general public. The opponents' case will be strengthened, as expected, bids for some companies are being book value.

## Schering optimistic despite blows

Analysts are concerned over series of setbacks for German drugs group

Schering was supposed to be a fast-growing drugs stock. The German group had hoped itself of its chemicals and agrochemicals business was predicted to surge on the back of its new revolutionary multiple sclerosis treatment. But it has not worked out that way.

The group has suffered a series of blows. The unexpected strength of the D-Mark, the withdrawal of its most promising contrast media drug used for X-rays, and concerns about the safety of its contraceptives have caused its shares to underperform the Dax index by 8 per cent so far this year.

The latest blow came this week when a Food and Drug Administration advisory committee recommended a multiple sclerosis drug from Biogen, the US biotechnology group, which will be the first US competition against the German group's Betaseron. Biogen's shares rose 12 per cent on the news, as analysts expect the company to receive full approval within the next few months and a launch by the middle of next year.

"We've certainly been accident-prone," admits Mr Giuseppe Vita, chairman of Schering's problems, have been reflected in its results. During the first nine months net profit fell 18 per cent and sales 2 per cent. Growth prospects for the coming quarter are slight.

Schering officials concede it has not been a good year. "But this will not deflect us from our strategy: cutting costs, focusing on our core pharmaceuticals business and developing new products," Mr Vita insists.

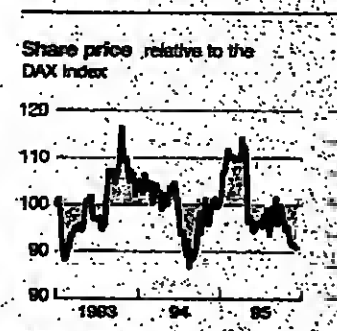
Such cost-cutting will be necessary as the group struggles with the strong D-Mark: about 17 per cent of turnover is earned in the US. Mr Klaus Pöhl, deputy chairman of Schering and responsible for finance, estimates Schering has lost more than DM300m in sales from the weak dollar.

On the revenue side, Schering is also struggling. The unexpected withdrawal from the market of Isovist 280, a contrast medium, was a serious setback. The product had been introduced in Japan in December 1994 and Germany last January. It was supposed to offer a considerable improvement in image quality and patient tolerance. But in

## COMPANY PROFILE

## Schering

Market capitalisation	\$4.7bn
Main listing	Frankfurt
Historic P/E	17.8
Gross yield	1.57%
Earnings per share, 1994	DM 4.57
Current share price	DM 86.35



Source: FT Data



Source: FT Data

October, physicians reportedly delayed side effects, notably skin allergies.

Although Schering remains upbeat, saying the withdrawal has only been temporary, analysts hold a different view. They believe the drug will not be marketed. Isovist 280 had sales of DM30m last year. They had been expected to double this year following a Japanese launch.

To make up for the shortfall in sales, Schering is putting

has not been confined to its diagnostics division. The controversy between the company and the UK and German health authorities about the alleged side effects of third generation contraceptive pills has rocked Schering's confidence in its fertility control and hormone therapy division.

The company has already challenged the German decision last month to impose greater restrictions on the availability of some of its prod-

The chairman remains stubbornly upbeat, determined that the company will not be deflected from its strategy

much emphasis on Levovist, an ultrasound contrast agent. It is currently on sale in Sweden and approval for Germany and other European Union countries is expected early next year. Mr Vita is confident Levovist will have worldwide sales of DM500m by 2000.

But sales do not equal profits, says Mr James McKean, analyst at Morgan Stanley. "Even if the product is launched next year, profit margins for the first year or two will be minimal," he says, adding that Levovist will not help make up for the shortfall of Isovist 280's sales which had already cost the company DM155m.

Schering's run of misfortune

ucts, most notably Femovan. Schering has already reported loss of sales for its third generation of oral contraceptives.

"The point about the contraceptive issue is that it has not yet even begun to dent Schering's sales in this division because it only happened in mid-October," Mr Jo Walton, analyst at Lehman Brothers, explains.

Mr McKean argues that even if Schering did make up for the shortfall in sales of third generation products by selling its second generation, "the profit margins will be much lower because the third generation products are much more expensive".

Which - aside from all the

accidents - leaves Schering with one product in which it has invested high expectations. This is Betaseron, the multiple sclerosis drug which is currently available only in the US and for which approval for the European market is pending.

Mr Vita says he expects Betaseron to reach worldwide sales of DM650m over the next 12 months.

"But this is where we worry about Schering's strategy," Morgan Stanley's Mr McKean says. "We can accept that the company has been accident-prone. But when it comes to Betaseron, Schering has consistently raised expectations and has failed to meet them. We are talking about a marketing problem."

For example, earlier this year Schering expected sales for Betaseron to amount to DM500m. This has been revised downwards several times. The latest estimate is about DM380m. "I am not confident it can reach the DM650m level over the next year," Mr McKean says. Other analysts agree.

One analyst points out that it is not yet certain which health authorities in Europe will publicly finance Betaseron. In the US, treatment for a year costs about \$10,000. "The costs could be between 10 per cent and 15 per cent higher in some European countries," Mr Vita says.

The FDA advisory committee's recommendation this week will weaken Betaseron's sales growth still further, Mr Walton at Lehman Brothers estimates Betaseron's US sales will be flat next year when Biogen's product is launched. Moreover, another competitor, from Teva of Israel, could reach the market in 1996.

Nevertheless, Mr Vita remains stubbornly optimistic, determined the company will not be deflected from its strategy. As for any thought that outsiders might poach Schering, he dismisses any speculation, calling it nonsense.

But Mr Walton remains more reserved. "There is a huge amount of consolidation among the medium-sized drug companies to secure their future. And unless Schering demonstrates stronger earnings growth, they may have to consider joining this trend."

Judy Dempsey

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ING BARINGS

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## INTERNATIONAL COMPANIES AND FINANCE

## ASIA-PACIFIC NEWS DIGEST

## Deputy chief steps down at Fairfax

Mr Michael Hoy, deputy chief executive of John Fairfax, the Australian newspaper publisher, is resigning from the group in February. Mr Hoy's surprise announcement yesterday comes just weeks after Mr Bob Mansfield, the former boss of Optus, the Australian telecommunications group, took over as chief executive at Fairfax.

"I think when you've got two very similar and both active and hands-on people in their approach to management then you've got the makings for substantial conflict, and very clearly somebody has to let go," Mr Hoy was quoted as saying.

Mr Mansfield said Mr Hoy's decision had been "carefully considered... and one which I fully understand and respect". He added that by remaining until the end of February, Mr Hoy would complete his involvement in the development of Fairfax's new printing facilities at Chullora in Sydney.

Mr Hoy, an Australian, joined Fairfax three years ago from the South China Morning Post where he was general manager, and was previously managing editor of The Times in London. News of his departure capped another day of active trading in Fairfax shares, which closed four cents higher at A\$2.89. There has been much speculation this week that two Australian media magnates, Mr Kerry Packer and Mr Rupert Murdoch, are hatching a deal which would result in a restructuring of Australia's media assets - and square with the country's rules on cross-media ownership and foreign ownership. Fairfax shares, in which both businessmen have stakes, jumped 15 cents to A\$2.85 on Monday.

Nikki Tait, Sydney

## BHP to reshape steel division

Broken Hill Proprietary, the Australian resources group, is to reorganise its large steel division, aimed at "accelerating plans to develop as a major multi-domestic steel company".

It said it would form a new flat products division, made up of the slab, plate, sheet and coil products divisions, and BHP New Zealand Steel.

The rod and bar products and existing long products division would be merged to form a long products division; and there would be two other divisions: building and industrial products and international.

Operations in its minerals business would also be combined to create three groups: copper, steelmaking raw materials, and world minerals.

Nikki Tait

## Taiwan computer group expands

First International Computer, Taiwan's second largest computer firm, said it had completed a T\$800m (US\$29.3m) expansion at two plants. As a result, the company expected to turn out more than 40,000 notebook computers and between 50,000 to 60,000 desktop personal computers a month.

The expansion would also raise its total monthly motherboard production to 500,000 units and 25,000 monitors, it said.

A monputer, an all-in-one desktop PC, can function both as a commercial and a home PC to link with networks such as the Internet.

Monputers can also provide multimedia facilities, voice mail, fax, television and TV games. The company did not give production figures before the expansion.

Reuters, Taipei

## Carrefour opens China outlet

Carrefour, the French hypermarket group, opened its first outlet in China yesterday. The opening marks the start of a nationwide drive to lure consumers away from China's socialist-era retail sector. The 4,000 sq m store near one of Beijing's diplomatic quarters opened its doors with a ceremony attended by Mr Yves Colland, France's visiting foreign trade minister, and Chinese dignitaries.

Carrefour said it planned to open many stores in China, starting in Shanghai. It added that it would then expand to Dalian, Tianjin and other cities.

The aim was to open 30 stores in the next 10 years. The supermarket, a joint venture between Carrefour and China Venturetech Investment Corp, has a staff of 350 and offers 6,000 products, 2,000 of which are foods.

Reuters, Beijing

## BAT set for clash with institutions over ITC

By Kunal Bose in Calcutta and Roderick Oram in London

BAT Industries, the UK tobacco and financial services group, is heading for a potential clash this weekend with Indian institutional shareholders in ITC, India's largest tobacco group in which BAT has a stake of almost 32 per cent.

ITC's nomination committee, made up of representatives from ITC's main shareholders, will meet to propose a chairman and chief executive to succeed Mr Krishan Lal Chugh, who is retiring this month after losing the confidence of BAT.

BAT will seek to persuade Indian institutional shareholders to split the roles by appointing an internal candidate as chief executive but an external candidate as chairman.

However, Indian institutional shareholders, which have about 38 per cent of ITC, are thought to be reluctant to split the roles.

They also appear keen to nominate Mr Yogesh Chander Deveshwar, ITC's vice-chairman, as the company's next chairman.

Mr Deveshwar returned to ITC several years ago after a stint as chairman of Air India. He came back as the heir-apparent to Mr Chugh and is thought not to command the support of BAT.

Other contenders for the top job are the two deputy chairmen, Mr Saurabh Mishra and Mr Feroze Rustom Vavalas, and Mr Bhiswadev Mitter, a director.

It is believed inside ITC that BAT will have no problem in working with any of the other three, although its first preference appears to be Mr Mishra.

Mr Deveshwar fell foul of BAT when it met with resistance from Mr Chugh and others over its proposal to raise its holding in ITC to 51 per cent.

According to an executive close to ITC, much will depend on what message the financial institutions receive from the finance ministry, which does not want to lose the support of BAT for its Indian associate.

"We will find it difficult to grow in the financial services business without the support of BAT. We can have a bigger share of the Indian cigarette market, provided we have a good working relationship with BAT," one source said.

## Reliance drops Bombay delisting threat

By Mark Nicholson in Bombay

Reliance Industries, India's biggest quoted private company, yesterday dropped its threat to delist from the Bombay Stock Exchange, the country's biggest.

The move defused a dispute which arose after the BSE suspended Reliance shares for three days last month, in a row over the issue of duplicate shares.

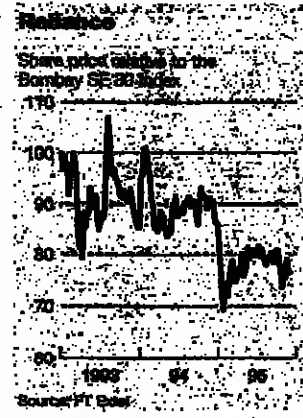
Reliance informed the exchange that it had "decided to accede to your request" not to delist in the interests of investors. The decision, made at a board meeting in Bombay, followed an official call from the BSE on Monday to reconsider its threat.

The textiles and petrochemical group has a turnover of

Rs2n, accounts for up to 30 per cent of trading volumes on the BSE and has a 14 per cent weighting in the BSE's main share index.

Peace between the two sides was mediated by a group of senior Bombay brokers. BSE members had urged the exchange to seek a compromise, fearing a heavy loss of commission had the bourse's most heavily traded and liquid stock moved - as Reliance threatened it would - to Bombay's smaller and rival National Stock Exchange.

Reliance said it had reached



Source: FT Data

its decision after being "overwhelmed" by a "spontaneous outpouring" of support from investors and following the "wise and patient counsel" of senior and respected members of the stockbroking fraternity.

Mr Kamal Kabra, president of the BSE, said he had expected Reliance to retract its threat, since he said there were no legal means available to the company unilaterally to delist.

"They have realised we are married for good, whether they like it or not," he added. "Under the present law, no company can delist as long as it is in a healthy state."

Reliance, however, said it had agreed to stay with the BSE even though "it was advised there were sufficient grounds in law to delist".

The row followed the BSE's decision in mid-November to suspend trading in Reliance for an unprecedented three days, punishment for alleged malpractice in the issue of 40,000 duplicate shares to a shareholder, who claimed to have lost an original batch of stock.

Reliance had bitterly contested the punishment, denying any wrongdoing and alleged to turn that the BSE had been prejudiced and premeditated, in acting against the company, seeking to cause "embarrassment" and "harm" to its reputation.

Reliance said the "substantive issue" it had raised "vis-a-vis reform of the Indian capital market" had been "widely accepted" during the recent dispute.

These, it said, were "in keeping with the spirit of globalisation" and were that "the concept of independent corporate governance" introduced in stock exchanges across the country, fairness and transparency be codified into the regulatory process, and effective redressal mechanisms be provided.

## Deal of decade threatened at Bank Hapoalim

Adoption of planned legislation may harm Israeli bank's sell-off, writes Mark Dennis

Bank Hapoalim's new

mauve granite headquarters in the heart of Tel Aviv's financial district is symbolic of the rapid transformation of Israel's largest and most profitable bank.

Elegantly designed with smooth lines and a central atrium, and housing state-of-the-art technology, it is an apt home for a bank which is undertaking a restructuring to produce customised high-tech services for its diverse clientele of corporations, smaller businesses and households.

However, while the managers of the 75-year-old bank seek to improve customer service, controversy over its substantial non-financial holdings is casting doubt on the bank's future and its forthcoming privatisation.

This week, a government committee recommended that Israeli banks substantially reduce their non-financial holdings, both in shares of companies and as a percentage of the bank's total equity. At issue is the virtual dismantling of Bank Hapoalim, which has by far the most extensive non-financial holdings among Israel's banks.

"As control of the banks moves to the hands of private parties, the bank's incentives will change... there can be no assurance that their power will not be abused once the banks are controlled by private parties," a Treasury-backed report said.

Bank Hapoalim is a commercial bank, merchant bank and

investment bank rolled into one and combined with a holding company.

Israel's universal banking system allows Hapoalim to be a financial supermarket involved in everything from selling stocks, making loans and appointing directors to some of Israel's most powerful companies.

The bank has Shk6.7bn (\$1.4bn) in deposits, one-third of Israel's total; Shk74bn in outstanding loans; 34 per cent of the total; manages 36 per cent of the assets of Israel's provident funds and 20 per cent of mutual fund assets; and finances one-third of the country's foreign trade.

Twenty-five per cent of Bank Hapoalim's \$2.16bn equity is made up of its non-financial holdings, which include controlling stakes in Israel's two largest industrial conglomerates, Koor Industries and Clal Israel.

Such a concentration of wealth makes the bank a virtual proxy for Israel's thriving economy and one of its most prized blue-chips up for privatisation next year.

The sale of a 20 per cent to 40 per cent controlling stake worth between \$400m and \$500m is "the deal of the decade" in Israel, one analyst said.

Two multinational groups comprising prominent investors are preparing bids. One company, the Renaissance group, includes the Bronfman family of Canada through Claridge Israel, Goldman Sachs, the International Investment Bank and Mr George Soros, the international financier. The second includes Israeli businessman Mr Eliezer Fishman and Bear Stearns, the global investment bank.

But the bank's concentration of economic power makes it a target for antitrust regulators.



Source: Company

Adjusted for inflation on the basis of CPI for 1994.

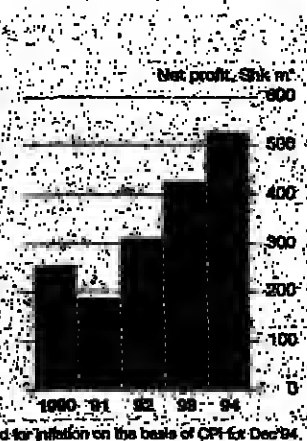
They believe the bank's size is a hindrance to competition, and its non-financial holdings a potential source of instability and conflict of interest.

In 1994, parliament required banks to divest all holdings in non-financial companies above 25 per cent and keep the bank's total equity in these holdings to 25 per cent by the end of 1996.

The latest recommendation calls for a greater divestiture, suggesting no more than a 20 per cent stake in any one company and a total equity invested of 15 per cent. In addition, Bank Hapoalim would have to divest fully from either Koor or Clal.

Adoption of such legislation could harm the forthcoming sale of the controlling stake. "The recommendation would definitely affect the value of the bank and may affect our participation," said Mr Jonathan Kolber, chief executive of Claridge Israel. "If its wings get too clipped, we will gladly walk away."

However, according to analysts, the two groups are themselves considering the divestment of some of the bank's holdings and are more con-



Source: Company

Adjusted for inflation on the basis of CPI for 1994.

cerned with being bound to a fixed timetable rather than the policy.

Mr Amiram Sivan, the bank's chairman, argues Hapoalim needs to retain non-financial holdings as a hedge against the volatility of the financial sector. Non-financial holdings contributed 40 per cent of profits of \$196m for the nine months of 1995 to September 30. Mr Sivan also says legislation and banking regulations prohibit any potential conflicts of interest and that the global trend is towards bigger banks.

Hapoalim's management team has been widely praised for turning it around after the 1983 crisis that led to mass selling of bank shares, and government intervention.

Led by Mr Sivan, the bank made its financial holdings more efficient and diversified its holdings to mitigate the effect of any future financial crisis.

Net profits rose from Shk189m in 1991 to Shk531m in 1994, with subsidiaries and affiliated companies accounting for Shk263.5m. In 1994, the bank made doubtful debt provi-



Amiram Sivan: argues a trend is towards bigger banks

sions of Shk661m, much of it to the agricultural sector. However, because of increasing profitability it expects to be able to write off some of that figure.

Mr Sivan said that in the face of the uncertainty of non-financial holdings, Bank Hapoalim would consider restructuring its banking activities.

The bank would divide into four divisions: household (retail), medium-sized companies, large corporations and private banking for large account holders.

Each division would have its own logistics and professional support because "service is very, very different for these various groups", Mr Sivan said.

However, as the bank enters its restructuring towards 2000, uncertainty over banking reform and privatisation are clouding its future.

The government must decide on the committee's recommendation in less than two weeks and the Renaissance group said it would announce next week whether or not it would change its position towards the privatisation.

## Foster's reveals plans for drinks business

By Nikki Tait in Sydney

Foster's Brewing Group may look at the wine industry as part of any diversification of its drinks business in Australia, Mr Ted Kunkel, chief executive, said yesterday.

In a review of the company's prospects, Mr Kunkel also outlined plans for an overhaul of the group's Australian pub assets.

To capitalise on the relaxation of gaming machine laws in Victoria, where half the hotels are based, the group

would seek to turn the pubs into "leisure destinations", offering a combination of gaming, restaurant and cabaret facilities.

He said the group's investment in Asia was likely to be pegged at between about A\$300m (US\$145m) in China, where Foster's has three breweries, and perhaps A\$50m in India and/or Vietnam.

Mr Kunkel added that losses from the Chinese business were expected to be between about A\$10m and A\$12m in the current year, but revealed

plans to ship Shanghai Beer to the US.

There were no plans to sell the Molson interest in Canada, despite recent speculation, he said.

In the UK, Foster's might withdraw from Invergordon Pub Company, formerly Invergordon Estates, its pub joint venture with Grand Metropolitan, the food and leisure group. GrandMet has also signalled a desire to sell, possibly via a flotation.

"At some stage in the coming year or two, as progress on

the new business plan becomes clearer, our continued involvement in IEL will be decided upon."

The decision would be made "in the light of other possible investments and an assessment of relative returns". Foster's was essentially ungaraged, he said, if retaining debt were weighed against non-core assets for sale. Foster's had shareholders' funds of A\$3bn.

However, its target long-term gearing ratio was about 50 per cent.

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On January 2, 1996, all payments of the principal of the Notes will be made by the delivery of ordinary shares of THOMSON-CSF at the rate of 3.46 shares for each U.S. \$1,000 principal amount.

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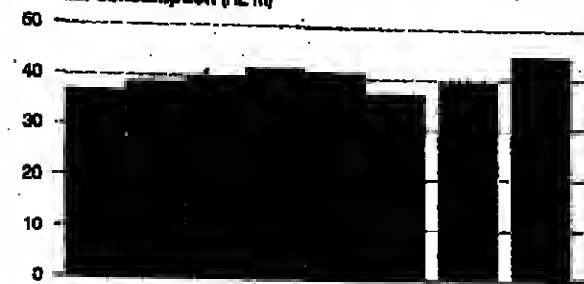
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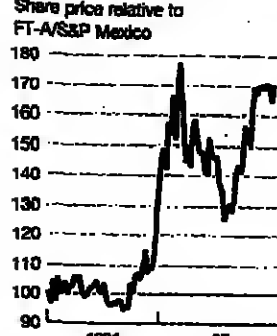
## MEXICAN BEERING INDUSTRY

## Mexico's beer market

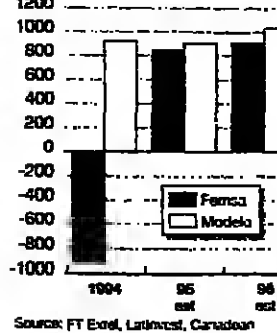
National consumption (H.L.M.)



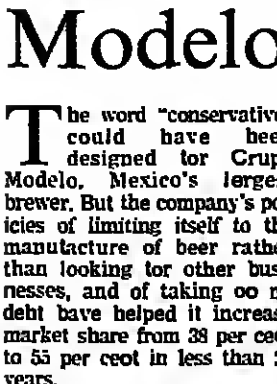
Modelo Share price relative to FT-ASAP Mexico



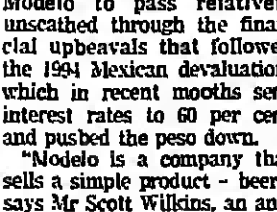
Femsa Share price relative to FT-ASAP Mexico



Net profit and loss (pesos m)



Sales growth (%)



Source: FT, Enel, Latham, Canadian

## Improving competitiveness with a change of culture

Femsa has undergone complete reorganisation but has yet to reap the full benefits, says Daniel Dombey



Daniel Dombey

During the past decade Femsa, Mexico's largest drinks company, has expanded aggressively in drinks-related businesses, while diversifying itself of other interests such as tourism, motor parts, fast food, housing and fishing.

It bought the third-largest brewery, Mochizuma, thus dividing the sector between itself and Grupo Modelo, Mexico's biggest beer company. It has built its Coca-Cola wing, Coca-Cola Femsa, into a great source of revenue as beer, as well as modernising its packaging operations into its most profitable division. It has also set up the country's biggest chain of 24-hour convenience stores, Oxxo, stocked with Femsa products.

The company is based around premium drinks with mass appeal, such as Coca-Cola and Sol and Tecate beers. In spite of recession and prices that have lagged inflation, domestic sales for the third quarter fell only 6 per cent to 3.2bn pesos (421m) compared with the same period a year ago.

Mr José Antonio Fernández, the company's chief executive officer, says Femsa plans to double its sales in nine years. "We are doing a lot of things

differently," he says, citing changes in the company structure and distribution network, and its partnerships with international companies such as Coca-Cola and the Canadian brewer John Labatt.

The company has reorganised into four separate divisions - beer (which accounts for 40 per cent of revenues), cola (also 40 per cent), packaging and retailing.

Senior managers, however, admit that the benefits of such a rationalisation are still to come.

Though competing with Modelo's superior distribution network and advertising campaigns, Femsa has halted the decline in its share of the beer market - currently at about 45 per cent, down from 54 per cent 10 years ago.

Sales for the first nine months of the year were 4.7bn pesos, a 1 per cent fall from the same period in 1994, though profits fell more substantially to 324m pesos.

Exports for the nine months, 6.75m hectolitres, equaled 5.5 per cent of total volume, a rise of 21 per cent on the same period last year. By contrast, Modelo exported about 12 per cent of total volume.

On the distribution side, Femsa has concentrated resources on the most competitive geographical areas, spinning off distribution franchises to third parties in less crucial areas.

## Labatt lends a hand with some marketing finesse

Mexico City's beer market has been dominated for years by Corona, a brand produced by Grupo Modelo, Mexico's biggest brewer. But a Femsa brand, Sol, has significantly eroded Corona's market share in recent months, writes Bernard Simon.

Sol's breakthrough in the capital is due largely to close co-operation between Femsa and John Labatt, the Canadian brewer which paid \$510m for a 22 per cent stake in Femsa Cerveza in late 1994.

The value of Labatt's stake has plummeted with the slide in the Mexican peso. But the Canadian brewer, which itself was taken over by Belgium's Interbrew earlier this year, at least has the satisfaction of watching Femsa halt a long slide in market share as the Mexican group has benefited from Labatt's marketing and technical skills.

"We've come to provide them with focus and direction," Mr David Kincaid, Labatt Breweries' marketing director, says. "It's a very open relationship. There are no secrets or hidden agendas."

It also hopes that Labatt's US distributorship, now fused with its own, will help boost exports.

Labatt holds a 22 per cent stake in Femsa Cerveza, bought in 1994 for \$510m - a move which helped Femsa reduce its debt burden. But Mr Fernández remains coy about whether the partnership will lead it to bring new products, such as ice beer, to the Mexican market.

It has also shifted from more expensive aluminium cans

towards bottles, a move which Mr Fernández believes increases the synergies between its drinks and packaging divisions.

The company's chief problem is Modelo - a large and focused competitor, with ample resources to invest in distribution and greater production. But with the expected increase in Mexico's beer drinkers - estimates range between 7m and 8m additional beer drinkers in the next 10 years - both companies will be able to grow.

Debt stands at 7.2bn pesos, and is almost exclusively in dollars in spite of chiefly peso revenues, which constrains investment in spite of favourable rates and maturities. No large tranche of debt falls due until 1997.

In contrast with the beer division, Coca-Cola Femsa, 30 per cent of which is held by Coca-Cola and 19 per cent of which is separately listed on the Mexico and New York exchanges, dominates its sector. But it saw operating profit

fall 48 per cent to 50m pesos for the third quarter, clouded by problems with a Buenos Aires franchise in which it has a 51 per cent stake.

The unexpected recession in Argentina and greater than expected problems in turning round previously inefficient operations contributed to the franchise's 12 per cent sales decline and 5.5m Argentinean peso (\$5.5m) loss for the third quarter. The Buenos Aires operation accounts for about a third of Coca-Cola Femsa's total sales of 1.1bn pesos.

"Here in Mexico, Coca-Cola is the cheapest way of getting calories into your body. But in Argentina, it is a luxurious beverage, more expensive than beer and wine in some parts of the country," Mr Fernández says.

Coca-Cola Femsa has not made clear whether it intends to exercise an option to acquire the remaining 49 per cent of the company, although Femsa officials say they are looking at buying neighbouring franchises to build up operations.

Though Femsa is undoubtedly well placed in growing sectors, greater focus remains its chief goal. The company's dark Noche Bueco beer recently came on sale in the country's stores; it is commonly regarded as Mexico's best, and yet is only distributed in the run-up to Christmas. The reason? It has always been that way.

## Modelo banks on the old formula

The word "conservative" could have been designed for Grupo Modelo, Mexico's largest brewer. But the company's policies of limiting itself to the manufacture of beer rather than looking for other businesses, and of taking on no debt have helped it increase market share from 38 per cent to 53 per cent in less than 20 years.

Its conservatism has allowed Modelo to pass relatively unscathed through the financial upheavals that followed the 1994 Mexican devaluation, which in recent months sent interest rates to 60 per cent and pushed the peso down.

"Modelo is a company that sells a simple product - beer," says Mr Scott Wilkins, an ana-

lyst at Baring Securities in Mexico City. "They haven't had to be extraordinarily innovative, but what they've done, they've done very well."

For the first nine months of 1995, the company announced sales of 6.8bn pesos (\$84m), a 4.6 per cent increase on the same period in 1994 in real peso terms. Profits of 703m pesos for the period marked a 15 per cent increase.

In spite of a 1993 association with Anheuser-Busch, the big beer brewer in the world, and exports to some 104 countries, Modelo remains a very traditional concern. The company only entered the Mexican stock exchange in 1994, floating 13 per cent of its stock.

"We move slowly here in Modelo, since that way there's

less risk of tripping up," said Mr José Sánchez Navarro, a vice chairman of the company and of 82 something of a symbol of its traditionalism. "It is a luxury we can enjoy because of our favourable position in the market." Beer in Mexico is a virtual duopoly, with Modelo and Femsa accounting for almost all domestic sales.

The company's products have changed little in recent years. Anheuser-Busch has yet to announce whether it will exercise an option to increase its 18 per cent holding in Modelo - for which it paid \$477m - to 35.12 per cent by 1998, while Modelo is cautious about when, or if, it will introduce new products as a result of the partnership.

However, the company has acted effectively in growth areas. In spite of the devaluation of the peso, it has not reduced the price of its beer in dollar terms but instead moved to invest more in foreign marketing and distribution.

As a result, it expects export sales this year to increase 38 per cent from the 1994 level of \$200m, with a further increase of 15 per cent to 18 per cent in 1996 and about 14 per cent in the years thereafter.

The company is also banking on the hope that the battered domestic market will begin to grow again. Modelo estimates that the recession will shrink domestic sales by 5 to 6 per cent this year from 1994's level of about 6.8bn pesos. It hopes that in future years, economic recovery and the growing young adult population will allow an annual sales growth of about 5 to 6 per cent.

Such thinking has been behind Modelo's construction in the central northern state of Zacatecas of what it claims will be the biggest brewery in Latin America, to serve the domestic market. The first phase of production, which is expected to begin in 1997, will cost \$400m.

It will have a capacity of 8m hectolitres, which is expected to double within a year. To date, the company has invested some \$200m.

Modelo's operations centre on Corona, by far its best-selling beer - which some analysts see as a potential weakness. While Femsa has shifted its promotional efforts within Mexico from one brand to another - it is currently heavily promoting Sol - Modelo has remained content with what has been its leading make since the 1960s.

"We have a lot of brands," said Mr Sánchez Navarro. "But we don't give them too much importance. We would turn to them if Corona began to lose popularity for some reason."

At present Corona's position is greatly helped by Modelo's formidable distribution network, which is especially strong in Mexico City, the country's most profitable market.

While Femsa credits its remodelled distribution network - using third-party distributors - with halting its decline in market share this year, Modelo remains happy with the overwhelmingly self-owned distribution network that has served the company and its customers, well to date.

"We couldn't have started the business without Modelo," says Mr Francisco Vázquez, the manager of a small fish restaurant near the centre of Mexico City. As is the case with hundreds of other bars and restaurants, all the chairs, tables and refrigerators are lost by Modelo and bear the Corona insignia.

"If the competition offered the same service, things might be different," said Mr Vázquez, who stocks only Modelo brands. "But as it is Modelo almost does too much for us."

Daniel Dombey

This is the third in a series. Previous articles appeared on November 24 and November 29

TENDER NOTICE  
UK GOVERNMENT  
ECU TREASURY BILLS

For tender on 12 December 1995

- The Bank of England announces the issue by Her Majesty's Treasury of ECU 1,000 million nominal of UK Government ECU Treasury Bills, for tender on a bid-yield basis on Tuesday, 12 December 1995. An additional ECU 50 million nominal of Bills will be allotted directly to the Bank of England for the account of the Exchange Equalisation Account.
- The ECU 1,000 million of Bills to be issued by tender will be dated 14 December 1995 and will be in the following maturities:  
ECU 200 million for maturity on 11 January 1996  
ECU 500 million for maturity on 14 March 1996  
ECU 300 million for maturity on 13 June 1996
- All tenders must be made on the printed application forms available on request from the Bank of England. Completed application forms must be lodged, by hand, at the Bank of England, Customer Settlement Services (formerly Securities Office), Threadneedle Street, London, not later than 10.30 a.m., London time, on Tuesday, 12 December 1995. Payment for Bills allotted will be due on Thursday, 14 December 1995.
- Each tender at each yield for each maturity must be made on a separate application form for a minimum of ECU 500,000 nominal. Tenders above this minimum must be in multiples of ECU 100,000 nominal.
- Tenders must be made on a yield basis (calculated on the basis of the actual number of days to maturity and a year of 360 days), rounded to two decimal places. Each application form must state the maturity date of the Bills for which application is made, the yield bid and the amount tendered for.
- Notification will be despatched on the day of the tender to applicants whose tenders have been accepted in whole or in part. For applicants who have requested credit of Bills in global form to their account with ESO, Euroclear or CEDEL, Bills will be credited in the relevant systems against payment. For applicants who have requested definitive Bills, Bills will be available for collection at Customer Settlement Services, Bank of England after 1.30 p.m. on Thursday, 14 December 1995 provided cleared funds have been credited to the Bank of England's ECU Treasury Bills Account No. 59005518 with Lloyds Bank Plc, Bank Relations, St George's House, PO Box 787, 6-8 Eastcheap, London EC3M 1LL. Definitive Bills will be available in amounts of ECU 10,000, ECU 50,000, ECU 100,000, ECU 500,000, ECU 1,000,000, ECU 5,000,000 and ECU 10,000,000 nominal.
- Her Majesty's Treasury reserves the right to reject any or part of any tender.
- The arrangements for the tender are set out in more detail in the Information Memorandum on the UK Government ECU Treasury Bill programme issued by the Bank of England on behalf of Her Majesty's Treasury on 28 March 1995, and in supplements to the Information Memorandum. All tenders will be subject to the provisions of the Information Memorandum (as supplemented) and to the provisions of this notice.
- The ECU 50 million of Bills to be allotted directly to the Bank of England for the account of the Exchange Equalisation Account will be for maturity on 13 June 1996. These Bills may be made available through sale and repurchase transactions to the market makers listed in the Information Memorandum (as supplemented) in order to facilitate settlement.
- Copies of the Information Memorandum (and supplements to it) may be obtained at the Bank of England. UK Government ECU Treasury Bills are issued under the Treasury Bills Act 1977, the National Loans Act 1968 and the Treasury Bills Regulations 1988 as amended.

Bank of England  
5 December 1995

## Bank of Greece

US\$50,000,000

Floating Rate Notes due 1996

Notice is hereby given that, in accordance with the provisions of the above mentioned Floating Rate Notes, the rate of interest for the six months period from December 6, 1995 to June 6, 1996 has been fixed at 6.25044% per annum.

The interest payable on June 6, 1996 will be US\$3,201.71 in respect of each US\$100,000 Note.

BANQUE INTERNATIONALE DE LUZEMBOURG

Focal, Principal Paying and Agent Bank

BANQUE NATIONALE DE PARIS

Programme for the issuance of Debt Instruments

USD 10,000,000

Floating Rate Notes due 2004

Series 22 Tranche 1

Notice is hereby given that the rate of interest for the period from December 6, 1995 to June 6, 1996 has been fixed at 5.85844 per cent per annum. The coupon amount due for this period is USD 2,876.37 per denomination of USD 100,000 and is payable on the interest payment date June 6, 1996.

DNP The Fiscal Agent Banque Nationale de Paris (Luxembourg) S.A.

## Equitable Capital DHO Ltd.

Note Interest Rate Resets

Pursuant to the Indenture dated as of October 1, 1990, between the Issuer and State Street Bank and Trust Company, as Trustee, notice is hereby given that for the interest period October 30, 1995 through April 29, 1996, the Note Interest Rate applicable to the Senior Notes is 6.78875% and to the Second Priority Senior Note is 7.71675%. Interest payable per \$1,000,000 principal amount of a Senior Note on April 30, 1996 will be \$64,477.61 and per \$1,000,000 principal amount of a Second Priority Senior Note will be \$60,226.96.

First International Funding Co.

Floating Rate Notes

Pursuant to the Indenture dated as of June 3, 1993 among the Issuer, State Street Bank and Trust Company as Trustee, and Financial Security Assurance Inc. as the Insurer, notice is hereby given that for the interest period October 30, 1995 through March 31, 1996, the applicable Note Interest Rate is: for the Notes due 1996, 6.425%; and for the Notes due 2000, 6.575%.

1995 FINANCIAL  
REPORT

Scotiabank

## Consolidated Statement of Income

(Canadian \$ millions)

For the financial year ended October 31	1995	1994
<b>Interest income</b>		
Loans	\$ 8,307	\$ 8,090
Securities	1,332	1,431
Deposits with banks	597	391
	<b>10,536</b>	<b>7,912</b>
<b>Interest expense</b>		
Deposits	6,166	4,149
Subordinated debentures	209	172
Other	1,046	487
	<b>7,421</b>	<b>4,808</b>
<b>Net interest income</b>	<b>3,115</b>	<b>3,104</b>
Provision for credit losses	560	567
<b>Net interest income after provision for credit losses</b>	<b>2,555</b>	<b>2,537</b>
<b>Other income</b>		
Service charges	394	355
Credit fees	292	264
Investment banking	261	377
Foreign exchange and precious metals	118	150
Other	492	316
	<b>1,557</b>	<b>1,462</b>
<b>Net interest and other income</b>	<b>4,112</b>	<b>3,999</b>
<b>Non-interest expenses</b>		
Salaries	1,438	1,401
Pension contributions and other staff benefits	214	182
Premises and equipment expenses, including depreciation	588	533
Other	604	578
Restructuring costs	-	175
Write off of goodwill	-	182
	<b>2,844</b>	<b>3,031</b>
<b>Income before the undetected:</b>	<b>1,268</b>	<b>968</b>
Provision for income taxes	371	455
Non-controlling interest in net income of subsidiaries	21	31
<b>Net income for the year</b>	<b>\$ 876</b>	<b>\$ 482</b>
Preferred dividends paid	\$ 104	\$ 97
<b>Net income available to common shareholders</b>	<b>\$ 772</b>	<b>\$ 385</b>
<b>Average number of common shares outstanding (000's)</b>	<b>228,598</b>	<b>218,713</b>
<b>Net income per common share</b>	<b>\$ 3.38</b>	<b>\$ 1.76</b>
<b>Dividends per common share</b>	<b>\$ 1.24</b>	<b>\$ 1.16</b>

## Consolidated Balance Sheet Highlights

(Canadian \$ millions)

As at October 31	1995	1994
<b>Cash resources</b>	<b>\$ 16,728</b>	<b>\$ 11,388</b>
Loans	21,874	21,566
Loans	97,088	88,779
Other	11,399	9,195
<b>Total assets</b>	<b>\$ 147,189</b>	<b>\$ 132,928</b>
<b>Personal deposits</b>	<b>\$ 45,538</b>	<b>\$ 42,431</b>
Business and governments deposits	41,747	35,880
Banks deposits	24,060	21,664
<b>Total deposits</b>	<b>111,345</b>	<b>99,755</b>
Other	25,275	23,918
Subordinated debentures	3,249	3,016
<b>Shareholders' equity</b>		
Preferred	1,575	1,100
Common	5,745	5,141
<b>Total liabilities and shareholders' equity</b>	<b>\$ 147,189</b>	<b>\$ 132,928</b>

**Note 1:** The Condensed Consolidated Financial Statements have been prepared in accordance with generally accepted accounting principles including the accounting requirements of the Superintendent of Financial Institutions Canada. The statements include the assets, liabilities and results of operations of the Bank and its subsidiaries and effectively controlled associated corporations. Investments in associated companies, where the Bank has significant influence or holds at least 20% but not more than 50% of the voting shares, are accounted for on the equity basis.

**Note 2:** As at October 31, 1995, 232,256,402 common shares were issued and outstanding (October 31, 1994: 225,256,775). The per share information has been based on the daily average of equivalent fully paid common shares.

**Note 3:** The Shareholders' Auditors have audited and reported on the Consolidated Financial Statements of the Bank as at and for the years ended October 31, 1995 and 1994. Their report is included in the Annual Report.

**Note 4:** Certain comparative amounts have been reclassified to conform with current year presentation.

Executive Offices: Scotia Plaza, 44 King Street West, Toronto, Canada M5H 1K1

In addition to more than 1,200 branches and offices across Canada, Scotiabank has branches, offices, subsidiaries and associated corporations in over 40 countries and territories including the United States, the Caribbean, Central and South America, Europe and Africa and the Pacific Rim.

THE BANK OF NOVA SCOTIA



## INTERNATIONAL COMPANIES AND FINANCE

## AMERICAS NEWS DIGEST

## RJR Nabisco splits chief's dual role

RJR Nabisco, the US tobacco and food group under pressure to break itself up, yesterday surprised Wall Street by announcing it was separating the role of chairman and chief executive and appointing Mr Steven Goldstone, a relative newcomer, to the chief executive's job. Mr Charles Harper, who had previously filled both posts, will remain chairman.

Mr Goldstone, 49, joined RJR Nabisco as general counsel in February this year and became president in October. He had previously been a senior partner at the New York law firm Davis Polk & Wardwell, where he had been closely involved with a number of companies in big financial transactions and restructurings.

Mr Goldstone's legal background and his lack of hands-on management experience is likely to prompt speculation that he has been given the chief executive's job as part of a plan to break up the company. However, the appointment could also be seen as a response to the fact that RJR Nabisco and other US tobacco companies face litigation on a number of fronts.

RJR Nabisco said Mr Harper had asked the board to make the change because of "compelling personal circumstances" - believed to be illness - that had recently developed in his family.

Mr Goldstone had served as a close adviser to RJR Nabisco and its board since 1978, it said, and he knew the company well. RJR Nabisco added that it was not unusual for chief executives to come from a legal background in the US.

RJR Nabisco's shares were up 5% at \$29 1/2 in early trading.

Richard Tomkins, New York

## Vartiy to buy back 3m shares

Vartiy, the North America-based car parks and diesel engine group, is using its ample cash resources for a further common share repurchase through the markets.

Vartiy plans to buy back 3m shares or 7.5 per cent of those outstanding, following completion of a previous programme to repurchase 4.5m shares. Under the first programme, Vartiy has bought back 4.2m shares so far at a cost of \$151m.

"Our financial strength has never been better and we can fund this new programme comfortably while investing in future growth," said Mr Victor Rice, chairman.

Robert Gibbens, Montreal

## Nortel offers voice dialling

Northern Telecom, the telecommunications equipment arm of BCE, is bringing speech technology into the office and home, by introducing "voice dialling" to homes and single-line business subscribers.

It will carry out a six-month trial with Bell Canada, BCE's fully-owned telecommunications utility, and Stentor, representing most other Canadian telephone utilities.

With voice dialling, users can dial a number simply by speaking the name of the person or company. The telephone system is programmed to provide the service, not the home or office telephone itself.

The user can enter up to 50 frequently called names and numbers, each with an identification word which, when used, will prompt the system to dial the correct number.

Nortel has been developing speech recognition for 15 years. Progress has been determined partly by the availability of computing power.

The test will show market reaction. Nortel hopes to introduce many more applications soon, for example for call-forward and conference calls and for stock quotations - the caller names the stock he wants and the system replies by voice.

Robert Gibbens

## Internet groups join forces to head off Microsoft

By Louise Kehoe  
in San Francisco

Internet technology leaders Sun Microsystems, Silicon Graphics and Netscape Communications have launched several software products and alliances aimed at bringing three-dimensional images and interactive multimedia to the World Wide Web.

The announcements were timed to pre-empt Microsoft's scheduled unveiling of its Internet strategy and new software products tomorrow.

In spite of its dominance in personal computer software, Microsoft has been slow to enter the growing market for Internet software. It is expected to introduce software development tools and software for Internet servers, the computers used to distribute information on the Internet.

However, Sun, Silicon Graphics and Netscape are determined to thwart Microsoft's efforts to establish its own software as the standard for the Internet. "Microsoft is welcome to join the Internet so

long as they don't try to turn it into a proprietary world", with software that will run only on the Windows operating system, said Mr Eric Schmidt, Sun Microsystems' chief technology officer.

As the marketing battle between the established Internet companies and Microsoft unfolds, competitors are casting Microsoft in the role of the enemy of "open standards" which ensure that all types of computers can communicate on the Internet.

Sun and Netscape yesterday unveiled a software development tool called JavaScript which makes it easy to design multimedia pages for the World Wide Web. JavaScript will compete directly with a product code-named Blackbird, which Microsoft is expected to introduce tomorrow.

In a related announcement, Silicon Graphics, Sun Microsystems and Netscape formed a software development alliance. Combining Silicon Graphics' virtual reality software with Sun's Java programming language and JavaScript from Sun

and Netscape, the companies aim to accelerate the development of interactive multimedia content for use on the Internet or corporate networks.

The software will enable a broad range of new services on the Internet, the companies said. "Today Web users can visit thousands of hyperlinked sites; our vision is to transform those same sites into dynamic, virtual worlds," Mr Tom Jermoluk, president of Silicon Graphics, said.

Sun, Netscape and other Internet companies are com-

mitted to maintaining open standards for the global computer network. Mr Marc Andreessen, Netscape co-founder and technology vice president, said.

Nonetheless, Netscape could face significant competition from Microsoft as it begins its push into the Internet market.

In particular, Microsoft is expected to introduce a product code-named Gibraltar for "servers" linked to the Internet, which will compete directly with Netscape's server software.

## RBC lifts targets after record profit

By Bernard Simon  
in Toronto

Record 1995 earnings have encouraged Royal Bank of Canada to raise its financial targets for the next three to five years.

RBC, Canada's biggest financial institution, said that, among other things, it would aim to increase its dividend payout from a range of 30-33 per cent of earnings, to 30-40 per cent.

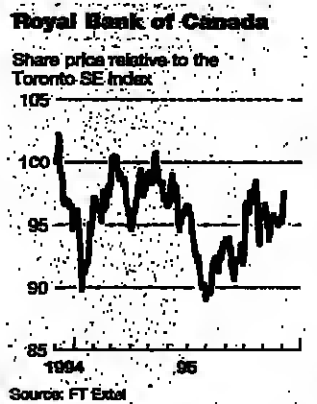
Earnings climbed to C\$1.26bn (US\$922m), or C\$3.49 a share, in the fiscal year to October 31, from C\$1.17bn, or C\$3.19, a year earlier.

The figures include unusual gains of C\$30m in 1995 and C\$50m in 1994 from the sale of non-performing Latin American bonds.

Return on equity dipped from 16.3 per cent to 16.6 per cent as a result of an 11 per cent increase in internally generated capital. Return on assets rose from 0.70 per cent to 0.73 per cent. Assets totalled C\$183.7bn on October 31, up 6 per cent from a year earlier.

The earnings were in line with analysts' forecasts, and RBC's share price showed little reaction. The shares were trading at C\$32 on the Toronto stock exchange at midday yesterday, down 38 cents.

Mr Mark Maxwell, an analyst at CIBC Wood Gundy, forecast that earnings would climb to C\$3.95 a share in the current fiscal year, based on a further - although smaller - drop in loan-loss provisions, a lower



expense ratio and a 6-7 per cent increase in fee income.

The record 1995 performance was largely attributable to a 29 per cent drop in loan-loss provisions charged against income to C\$580m. Non-performing loans shrank by 33 per cent to C\$2.9bn at the end of the fiscal year, including a 38 per cent drop in the bank's portfolio of troubled commercial property loans. In addition, non-interest expenses were unchanged, with lower employee and property costs offsetting an increase in deposit insurance premiums and accelerated depreciation of equipment.

Fourth-quarter earnings grew 6 per cent to C\$320m, or 90 cents a share. Return on equity was 16.2 per cent. As part of its "more aggressive" financial goals, RBC said it would in future aim for a return on equity of 16-18 per cent, compared with the current 16 per cent target.

## Bidders line up for Voisey Bay stake

By Kenneth Gooding, Mining  
Industry Correspondent,  
in Kelowna

Almost all of the world's big mining companies are competing for a stake in the Voisey Bay nickel project in Labrador, Canada, according to Mr Robert Friedland, co-chairman of Diamond Fields Resources, the Canadian exploration company that found the deposit. It has been described by some analysts as the most important mining discovery for 30 years.

Two Canadian groups - Inco, the world's biggest nickel producer, and Teck Corporation, one of North America's leading gold companies - have already bought in to the project at a combined cost of C\$633m (US\$464m), but Mr Friedland insisted there was room for one more leading company to become involved.

"This is a very big salami

and it is getting bigger all the time. There is plenty for someone else to take a slice," he added.

Speaking before giving a presentation at the first Australian nickel conference here yesterday, Mr Friedland said Diamond Fields was under some pressure to make a quick decision. Confidentiality agreements signed with 30 leading mining groups, which included "standstill" arrangements preventing hostile bids by the signatories, mostly run out at the end of this year.

His board would prefer to make the decision before Christmas, he said, but delays were being caused by further discoveries at Voisey Bay in the past 30 days. "Every time we hit a new discovery it slows everything down. We want to know what we've got. We don't want to sell too early."

Nevertheless, the decision

about another partner inevitably was linked with a decision on when Voisey Bay would go into production and the scale of initial production. His board had set a target of making these decisions by June 30, at which time a "bankable" feasibility study would be ready.

Mr Friedland suggested the most likely outcome would be for production to start in 1999 at the rate of 133m lbs (60,000 tonnes) a year. He made it clear that he wanted Voisey Bay in production as early as possible to deter some of the many other potential nickel projects still in the pipeline.

He said: "If the nickel price comes down to \$3 a pound [because of Voisey Bay going into production] and sterilises some of the other projects, we won't be sorry."

Potential partners were offering several alternatives to Diamond Fields, he revealed. The

choices were between selling another part of the project or another stake in Diamond Fields itself, or a merger with another company.

Diamond Fields was also being offered shares in other projects in exchange for part of Voisey Bay. There was a chance it might forge "a more profound" relationship with either Inco or Teck.

Mr Friedland pointed to a research paper by Ms Robyn Storer, an analyst at CS First Boston, which suggested Inco would almost certainly have to mount a counter-bid if there were any chance of Diamond Fields falling into the hands of another leading mining company. This was because Inco's present 25 per cent stake in Voisey Bay "is not enough to protect it from losing its dominance of the nickel market" should this happen.

See Commodities

## Wallace's future is in the cards

Friday is the day of reckoning for the Moore bid, says Bernard Simon

Mr Reto Braun will have three different speeches in his pocket when he arrives at a suburban Chicago hotel on Friday morning for the annual meeting of Wallace Computer Services.

Which speech the chief executive of Toronto-based Moore Corp delivers will depend on how many Wallace shareholders have sent in their gold-coloured proxy cards in support of Moore's four-month struggle for control of the Chicago business forms and information services group.

A last-minute agreement before the meeting cannot be entirely ruled out. Wallace's directors, who have so far refused even to meet Moore, are under intense pressure from institutional shareholders to sit down and strike a deal.

The last legal barrier to Moore's bid was removed on Monday, when a Delaware court dismissed Wallace's claim that the takeover infringed US antitrust laws. "If I was sitting on that board, I would be extremely nervous," says one New York-based shareholder.

Another portfolio manager, who accuses Wallace of a "paternalistic attitude", says that "we continue to be discouraged by Wallace's refusal to listen to stockholders".

The Canadian company's latest offer of \$60 a share, or a total of \$1.4bn, is almost 50 per cent higher than Wallace's share price when the battle was joined in late July.

Many shareholders and analysts are confident that Moore would raise its bid by a few dollars if it was assured of a deal. A Moore official says the offer will remain at \$60 "unless

we have some information that we don't have today, which is unlikely".

But investors are also nervous that Moore may walk away in frustration. Their fears are reflected in Wallace's share price, which stood at \$57.38, or \$2.62 below Moore's latest offer, on the New York stock exchange yesterday morning.

Wallace is widely regarded as a prize trophy in the unglamorous world of business forms, labels and direct-mail services. Its earnings, including expenses incurred in funding off Moore, soared by 44 per cent in the quarter to October 31, exceeding analysts' expectations.

The Chicago company, with record sales of \$214m in the latest quarter, has a reputation for innovation and entrepreneurship, especially in electronic business forms.

Moore, with annual sales of about \$2.4bn, is four times bigger than Wallace, and has a far wider international business. Once regarded as a slow-moving pillar of Canada's business establishment, Moore has gained a new lease of life since Mr Braun, a former computer industry executive, took the helm two years ago.

By acquiring Wallace, Mr Braun would bring a blast of fresh air into Moore, especially its US operations. He would also put Moore in the vanguard of the consolidation that analysts predict is in store for the slow-growing business forms sector.

However, Wallace has insisted that shareholders would be best served if the company remained independent. It has tried to convince



Reto Braun: breathed new life in to Moore when he took helm

outsiders that it has a stellar future which has yet to be reflected in earnings.

But many of Wallace's senior managers, including Mr Boh Cronin, the chief executive, have spent most of their working lives with the company, fuelling an impression that they are determined to block an outside bid, no matter how generous.

Wallace has mounted a proxy campaign of its own in the hope of defeating Moore's proposals at the annual meeting. Mr Cronin and his chairman, Mr Theodore Dimitroff, visited several shareholders last week in an effort to drum up support.

Goldman Sachs, the US investment bank advising Wallace, has also scoured North America, Europe and Japan for a white knight.

A Wallace official said yesterday that "overall, we are very happy with the level of support we are getting. Short-term people who are in it for a couple of bucks don't see anything longer term than a

couple of weeks. Not all investors have invested on that basis".

If no deal is reached before the annual meeting, emotions are bound to run high. Moore has sought shareholders' support to dissolve Wallace's poison pill and toss out its entire board of directors.

However, the proposal to overturn the poison pill requires the support of 80 per cent of Wallace's outstanding shares. Some 73.5 per cent of the shares were tentatively tendered to Moore last month. But the shares cannot be legally transferred so long as the poison pill remains intact.

The second best outcome for Moore would be a clear majority of votes, which would enable it to elect three nominees to the Wallace board. An arch-rival's presence in the boardroom would greatly complicate the ability of Wallace's present directors and management to run the company.

"I don't see how they can live with a competitor on the board," says one Wallace shareholder.

Views differ on whether Moore will succeed in reaching the 80 per cent goal. Most shareholders, especially the arbitrageurs who now hold an estimated 40 per cent of Wallace's stock, would prefer the matter to be settled before the proxy fight comes to a head.

Mr David Simon, owner of Twin Securities, a New York money-management firm which is a sizeable Wallace shareholder, echoes a widely-held view with his comment that "Moore has to pay a little more, and Wallace has to sit down and negotiate".

## The 100 Year Bond Financing for the Next Century

<p><b>\$500,000,000</b></p> <p><b>BellSouth Telecommunications, Inc.</b></p> <p>100 Year 7% Debentures Due December 1, 2095</p> <p>Price 99.720% and Accrued Interest</p>	<p><b>\$200,000,000</b></p> <p><b>Columbia/HCA Healthcare Corporation</b></p> <p>100 Year 7.50% Debentures Due November 15, 2095</p> <p>Price 100% and Accrued Interest</p>
<p><b>\$150,000,000</b></p> <p><b>ABN AMRO Bank N.V.</b></p> <p>100 Year 7.125% Subordinated Deposit Notes Due October 15, 2093</p> <p>Price 99.178% and Accrued Interest</p>	<p><b>\$300,000,000</b></p> <p><b>The Walt Disney Company</b></p> <p>100 Year 7.55% Senior Debentures Due July 15, 2093</p> <p>Price 100% and Accrued Interest</p>

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Fidelity Funds SICAV has declared an interim dividend in respect of shares of each of the underlisted sub-funds held at close of business on 31st October 1995. The dividend amount, bearer coupon number and payment currency is as indicated below. In the case of registered shares, dividends will be paid or reinvested in additional shares of the relevant fund as appropriate on payment date of 12th December 1995. Dividends not cashed within 5 years from payment date will lapse and the dividend will revert to the Fund.

SUB-FUND NAME	PAYMENT CURRENCY	DIVIDEND PER SHARE	COUPON NUMBER
USD Bond Fund	USD	0.1522	10
Sterling Bond	GBP	0.0043	20
Yen Bond Fund	JPY	25.7700	10

Dividends will be paid to holders of Bearer Shares in the currency of denomination of the sub-fund (or by arrangement with the Paying Agent and at the cost of the shareholder, in any other currency) against tender of the coupon number listed.

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**SIV INDUSTRIES LIMITED**

**NOTICE IS HEREBY GIVEN** that a Meeting of Warrant Holders (those who are registered as holders or joint holders in the Warrant Register of the 2,356,000 Warrants issued on 09 August 1994, listed on the Luxembourg Stock Exchange and entitling the holder to subscribe to 1 GDR of SIV Industries at US\$6.37) will be held at Simmons & Simmons, 21 Wilson Street, London, England on 28 December 1995 at 3.00pm, for the purpose of considering and, if thought fit, passing the following Resolution as an Extraordinary Resolution:

**"RESOLUTION"**

1. THAT it is hereby resolved that:

in relation to the 2,356,000 Warrants issued on 09 August 1994, listed on the Luxembourg Stock Exchange and entitling the holder to subscribe to 1 GDR of SIV Industries at US\$6.37 during an exercise period currently expiring on 31 January 1996, the expiry of the period during which the said Warrants may be exercised shall be extended until and including 09 August 1996, and references in any document relating to the Warrants to the "Expiry Date" shall take effect accordingly, all other terms remaining unchanged."

**NOTE:**

A Warrant holder entitled to vote at the meeting convened by the Notice set out above is entitled to appoint a proxy to attend, who for all purposes in connection with the meeting specified in the appointment shall be deemed to be the holder of the Warrant. A Warrant holder may appoint a proxy by executing and delivering a form of proxy in the English language to the specified office of a Warrant Agent or the Warrant Registrar not later than 24 hours before the time fixed for the meeting. In the case of corporations, any appointee representative of the company, a resolution in the English language of their Directors or other governing body and by delivering an executed copy of such resolution to a Warrant Agent or the Warrant Registrar not later than 24 hours before the time fixed for the meeting.

As the Warrants are held in global form, investors entitled to Warrants should instruct the clearing system through which they hold their Warrants (The Morgan Guaranty Trust Company of New York as operator of Euroclear, Cede Bank, Société Anonyme or the Depository Trust Company) to exercise the vote with respect to such Warrant on their behalf by appointing a proxy or representative. Details of the arrangements for giving such instructions are available from each such clearing system.

Dated: 6th December 1995

سكرا من الاصل



## COMPANY NEWS: UK

## Siebe vows to maintain acquisition strategy



Barrie Stephens (left), chairman, and Allen Yurko did not rule out bid of at least \$500m

By Tim Burt

Siebe, the international controls and appliances group, yesterday vowed it would continue with its aggressive acquisition strategy after spending more than \$86m (£136m) on bolt-on subsidiaries in the first half.

The company, which has spent some £1.3bn on acquisitions in the past 12 years, said it saw no reason to scale back its expansion ambitions after reporting a sharp increase in interim profits.

Mr Allen Yurko, chief executive, predicted that acquisitions would continue at the same pace in the second half and did not rule out a large bid of "at least \$600m".

"We're not scoring the world for a big deal, but if the right one came along, we would not hesitate to move," he said.

Mr Yurko said the company's expansion strategy was to acquire businesses in the UK and in France and has a significant presence in the US. It announced pre-tax profits up 37 per cent from \$14.5m to \$22.4m (£8.8m) in the year to September 30.

Turnover doubled to £102.2m (£50.9m) through a mixture of organic growth and acquisitions. Earnings per share were 53 per cent ahead at 13.80p (9.05p after adjustment for a recent 5-for-1 share split). A final dividend of 1.6p is recommended, making a total 10 per cent higher at 2.4p.

Mr David Goldman, chairman, said the year finished robustly, and trading in the first few months of the new year was encouraging. "Further improvements are expected," he said.

Further acquisitions would build on contributions from the six companies acquired last year at a cost of £147.5m and the five purchased in the six months to September 30.

Mr Yurko said the strategy was part of Siebe's commitment to being Britain's largest diversified engineering group, with manufacturing operations in North America, continental Europe and particularly in the fast-growing markets of Latin America and the Pacific Rim.

Increased operating profits and strong organic growth in all those markets helped lift interim pre-tax profits from £119.5m to £144.2m, on increased sales of £1.3bn (£1.01bn).

"We had good solid margin growth, and every division achieved sales and profit growth despite some patchy economic conditions",

Mr Yurko added. Of those divisions, he said control systems - which makes automated plant equipment - was "on a roll" with profits up by 26 per cent from \$54m to \$68m.

Its growth more than offset the more modest improvement at temperature and appliance controls where profits rose 6 per cent to \$51.5m despite a slight demand from North American automotive customers.

Together, the three divisions contributed operating profits of £166.2m, against £138.5m. Although financing that growth led to a sharply increased working capital - up by \$88.5m - and reduced net cash from operating activities of \$46.5m (£37.2m), Mr Yurko predicted the working capital burden would ease in the second half.

Lex, Page 16

## Taiwan plant to hit BTR results

By Patrick Hargrave

BTR, the industrial conglomerate in the final stages of a restructuring, yesterday warned that its profits this year would not meet expectations.

It blamed the deteriorating performance of its Taiwanese polymer plant and a slowdown in some of its main construction and automotive markets.

However, the group said its results this year would still show an improvement on 1994, when it made pre-tax profits of £1.41bn (£2.22bn).

The statement prompted analysts to lower forecasts for BTR's 1995 profits from £1.65bn-£1.5bn to about £1.45bn. It followed yesterday's warning from Williams Holdings, a fellow conglomerate, of a dampening of profits expectations amid similar difficult market conditions.

The shares declined 14p to close at 320p. Analysts said part of the decline reflected investor concerns that the group's soon-to-be completed \$20m purchase of the remaining minority stake in BTR Nylas, its majority-owned Australian subsidiary, might turn out to be ill-timed given the depressed construction sector in that country.

BTR said the global economic background, which had appeared to improve early in the year, was increasingly a concern. "As is now becoming evident in many countries, industrial activity in 1995 has shown little signs of sustained recovery following the strong first quarter," the group said.

## Another year of losses expected in US data products division

## Lottery helps Racal rise to £30m

By Christopher Price

Racal Electronics yesterday confirmed the purchase of British Rail Telecommunications, for £133.8m, as the data communications and electronics group reported a 28 per cent rise in half-year pre-tax profits.

The shares, which rose 17p on Monday after news of the purchase leaked into the market, gained a further 6p yesterday to 278p. Analysts said the acquisition was a positive strategic move and switched attention from the continuing difficulties at the data products division.

Pre-tax profits for the six months to October 13 rose from £23.5m to £30.1m, which included an \$8.2m contribution from Racal's share in Camelot, operator of the National Lottery. Turnover increased 4 per

cent to \$506.6m. The interim dividend is increased from 1.75p to 2.1p, payable from earnings of 7.09p (5.79p).

Without Camelot, profits fell 7 per cent during the first half. The underlying decline was reflected in the performance of Racal Datacom, the US-based data products division, which remained in the red, although details were not disclosed. Sir Ernest Harrison, chairman, said that management changes and a product review would help turn the business around, although it would continue to make losses for at least another year.

Profits from the data communications division, which includes Racal Datacom, rose from \$834,000 to \$3.43m, although this also included Camelot's contribution. Sales declined 4 per cent to £108.2m.

Other factors adversely affecting the division included the reduced installation of National Lottery machines, a fall in the Transcom electronic point of sale business due to the completion of a large order, as well as extra R&D costs in data products.

Profits and sales also declined in the radio business, which the company blamed on US defence cuts and the costs associated with bidding for a large UK defence order. Results from the marine and energy division and the specialised businesses were both largely flat.

The BTR purchase will be financed by new borrowings, and increase group gearing from about 17 per cent to more than 85 per cent. This will reduce to approximately 80 per cent by the year end. The com-

pany said the deal would be earnings enhancing and add 15 per cent to group annual sales. BTR, with 27,000 km of cable network, has one of the largest telecommunications networks in the UK. Racal will lease nearly all the assets from Rail-track for 21 years, although the electronics group will own those parts of the network it replaces and renews in that time. The business made pre-tax profits of £17.6m on turnover of £174.2m to March 31.

Mr David Elsbury, chief executive, said only 20 per cent of the network's capacity was currently used and the group would be looking to attract large businesses to utilise the system. He added that BTR would require annual investment of £30m a year during the next three years.

Lex, Page 16

## RESULTS

Company	Turnover (£m)	Pre-tax profit (£m)	EPS (p)	Current dividend (p)	Date of payment	Dividend cover	Total for year	Total for year
Allied Colloids	150.6 (170.2)	20.3 (24.2)	2.81 (3.35)	0.58	Feb 16	0.55	2.8	2.8
Anglian Group	102.8 (88.4)	4.46 (4.74)	3.5 (3.9)	3	Feb 16	4.1	10.3	10.3
Asda	131.8 (126.7)	6.78 (6.74)	18.8 (18.7)	8.5	Jan 23	6.25	19.3	19.3
Camden Plc	0.87 (1.11)	4.98 (2.71)	0.48 (0.27)	-	-	-	-	-
Carlsberg	14.0 (12.4)	1.19 (0.572)	6.86 (6.05)	3	Jan 10	-	1.1	1.1
Cheltenham & Gloucester	55.1 (42.1)	3.54 (2.04)	13.81 (11.5)	2.95	Feb 3	2.6	4.6	4.1
Cheltenham & Gloucester	26.5 (25.3)	0.007 (0.764)	0.01 (2.5)	0.01	Feb 14	0.01	0.01	0.01
Cheltenham & Gloucester	51.5 (48.1)	9.27 (7.55)	25.8 (20.2)	8	Feb 14	5.05	27.35	27.35
Cheltenham & Gloucester	80.5 (62.9)	7.53 (7.82)	17.8 (19.3)	4.4	Jan 24	4.2	8.6	8.3
Cheltenham & Gloucester	60.6 (58)	4.22 (5.2)	4.4 (5.5)	1.23	Jan 29	2.46	7.83	7.83
Cheltenham & Gloucester	617.1 (621.5)	92.7 (102.4)	34.6 (34.1)	12.25	Mar 25	9.3	29.75	29.75
Cheltenham & Gloucester	17 (13.2)	1.21 (1.08)	7.7 (6.7)	2.1	Mar 29	2.2	8.75	8.75
Cheltenham & Gloucester	98 (102.5)	3.16 (1.54)	4.28 (2.14)	-	-	-	-	-
Cheltenham & Gloucester	212.8 (205.6)	47.7 (44.34)	24.31 (21)	5	Mar 29	3.9	13.4	13.4
Cheltenham & Gloucester	8.46 (4)	0.816 (0.182)	1.2 (0.22)	0.25	Feb 5	0.125	0.525	0.525
Cheltenham & Gloucester	505.8 (487.3)	30.19 (23.59)	7.38 (5.7)	2.1	Feb 9	1.75	5	5
Cheltenham & Gloucester	5.33 (6.49)	0.742 (1.05)	7.1 (12)	-	-	-	-	-
Cheltenham & Gloucester	102.2 (50.1)	22.4 (14.3)	13.88 (6.08)	1.6	Feb 8	1.45	2.4	2.18
Cheltenham & Gloucester	0 (0)	3.859 (2.359)	7.5 (5.8)	1	Jan 26	1	1.5	1
Cheltenham & Gloucester	1,200 (1,012)	144.2 (110.5)	19.2 (16.2)	4.44	Apr 10	4.03	13.1	13.1
Cheltenham & Gloucester	15.4 (1.82)	4.249 (2.49)	21 (1.92)	0.8	Apr 10	0.8	0.15	0.15
Cheltenham & Gloucester	57.9 (54.7)	3.94 (2.55)	2.7 (2.9)	2.5	Apr 20	2.5	7	7
Cheltenham & Gloucester	120.3 (114.1)	68.4 (58.2)	22.7 (20.1)	5	Apr 9	4.4	13.2	13.2

Investment Trusts

Company	NAV (p)	Dividend (p)	EPS (p)	Current dividend (p)	Date of payment	Dividend cover	Total for year	Total for year
Edinburgh Trust	31.13 (44.75)	1.48 (1.34)	0.5293 (0.4782)	0.4	Jan 31	0.4	0.4	0.4

Earnings shown basic. Dividends shown net. Figures in brackets are for corresponding period. After exceptional charge. After exceptional credit. For increased capital. \$USM stock. Special of 100p also declared. Final of 24.75p dividend. 30p reduced capital. Adjusted for share split. Comparative restated. Cross.

## Hogg steps up at Allied Domecq

Sir Christopher Hogg, one of the UK's respected business leaders, will become chairman of Allied Domecq next spring, the drinks and retailing group is expected to announce before Christmas. His appointment will be welcomed by investors and analysts who have seen Allied Domecq's shares languish despite the restructuring by Mr Michael Jackman, chairman and Mr Tony Hales, chief executive, writes Rodrick Oram.

As deputy chairman since June, Sir Christopher, 59, was seen as a likely successor to Mr Jackman but doubt crept in because no date had been set despite City frustration with the company's lacklustre performance. Allied declined to comment yesterday.

"There is a slight air of inevitability underperformance which does not reflect well on the current management," an institutional shareholder said. "But whether a new chairman can reverse things quickly is a moot point."

## Tenth year of growth for Sage

By Alan Carne

Shares in Sage Group rose 37p to 312p yesterday, as the personal computer accounting software company announced its 10th successive year of growth in revenues and profits. The group leads the market for small business accounting software in the UK and in France and has a significant presence in the US. It announced pre-tax profits up 37 per cent from \$14.5m to \$22.4m (£8.8m) in the year to September 30.

Turnover doubled to £102.2m (£50.9m) through a mixture of organic growth and acquisitions. Earnings per share were 53 per cent ahead at 13.80p (9.05p after adjustment for a recent 5-for-1 share split). A final dividend of 1.6p is recommended, making a total 10 per cent higher at 2.4p.

Mr David Goldman, chairman, said the year finished robustly, and trading in the first few months of the new year was encouraging. "Further improvements are expected," he said.

ted this year as the group's three French businesses begin to work together more effectively.

"In the UK, demand for our products and services continues to grow and margins remain strong. In the US, the centralisation of our operations in Dallas will continue to sustain their improved margins."

Mr Goldman intends to take the role of non-executive chairman, leaving day to day control of the company in the hands of Mr Paul Walker, chief executive.

Strong cash flow has enabled the company to pay back almost 50 per cent of an £18.5m unsecured loan taken out in November 1994 to fund the acquisition of Saari, the French company.

Sage's UK operations account for 46 per cent of its revenues and 69 per cent of its profits. It is attempting to bring operating margins at its three French subsidiaries closer to the UK model.

## Midlands Electricity plc

## Interim Results

Interim results for the six months ended 30 September 1995 and proposals for increased dividends for the current year, a special dividend and a sub-division of share capital.

## Highlights

- Distribution profits £76.0m (1994 first half: £76.1m) - a strong performance in a tighter regulatory environment.
- Supply profits £17.8m (1994 first half: £17.5m).
- Group profit on ordinary activities before tax £92.7m (1994 first half: £102.4m) affected by higher interest charge following share buy-back and by costs associated with the PowerGen offer.
- Earnings per share 37.4p\* - up 9.7% (before exceptional costs).
- £54.60 National Grid discount for domestic customers (including VAT).
- Interim dividend 12.25p\* (net) - up 31.7%.
- Proposed special dividend of 100p\* (net).
- Proposed two-for-one share split.

\*On the existing share capital.

## The Chairman's Statement

Chairman Bryan Townsend said: "I am delighted to be able to report a strong operating performance in the first half of the year. In our Distribution business we have reduced controllable costs by 15.7% in real terms compared with the equivalent period last year and improved productivity. We are on target to reduce annual operating costs by £30m over three years from April 1994.

The recommended proposed merger with PowerGen plc has been referred to the MMC. MEB will be presenting its case to the MMC and we await the outcome.

The listing of the National Grid Group plc provides benefits to our customers and shareholders. Subject to approval at the EGM on 8 December 1995, it is our intention to distribute to our shareholders MEB's shares in NGG. The discount of £54.60 (including VAT) is particularly good news for our two million domestic customers.

Our Generation business has made considerable progress. Operating profit for our UK operations, including Teesside, is £4.6m and we are confidently expecting to see financial completion of our projects in Turkey and Pakistan before the end of the financial year.

The performance in the first half of the year has been very encouraging. It is our declared policy to deliver value to our shareholders and these results, together with the underlying strength of the Company, will allow that strategy to continue. Today we have announced proposals for a significant increase in dividends for the year, a special dividend and a sub-division of our share capital."

**MEB**

Midlands Electricity plc

Registered Office: Mucklow Hill, Halesowen, West Midlands B62 5BP. Registered in England and Wales No. 236882B.

The Interim Results, together with details of the proposed special dividend and the sub-division of the existing share capital, will be contained in a circular to be posted to shareholders as soon as practicable. Copies of the Interim Results are also available from the Company Secretary at the registered office.

MEB shareholder enquiry line: 0121-423 2398

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Waterford Foods plc

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## Planning for a swift return to top division

Inchcape is attempting to reduce its dependence on the yen and volatile spending patterns. Tim Burt reports

Inchcape, the international marketing and services group, is today expected to have its share price reduced by 60 per cent. Much of its problem has been external perception. In the early 1990s, it was seen as a recession-friendly stock, offering exposure to fast growing Asian markets. In reality, it is a volatile, low quality agency business, which deserves to be rated accordingly. Indeed, its management should not be held fully responsible for the decline in pre-tax profits before exceptional items from £271m in 1993 to an expected £140m this year.

It was slow to launch the recent restructuring, which will boost next year's profits by £30m. But problems with the product offerings at Toyota and Mazda, the strong yen and the collapse in consumer confidence in Hong Kong have all been outside Inchcape's control, and hard to predict.

At least the arrival of Sir Colin Marshall as chairman should sharpen the focus on costs. The first cost that could sensibly be cut is the dividend. This will scarcely be covered by current year profits, even before restructuring provisions. And with a yield of almost 8 per cent, a cut is clearly expected. But it remains hard to see much upside in the shares. They are trading at a chunky market premium, even based on 1996 forecasts. With the potential for franchise losses and further volatility of earnings, Inchcape deserves a discount rating, so a lot of future recovery has already been written into the shares.

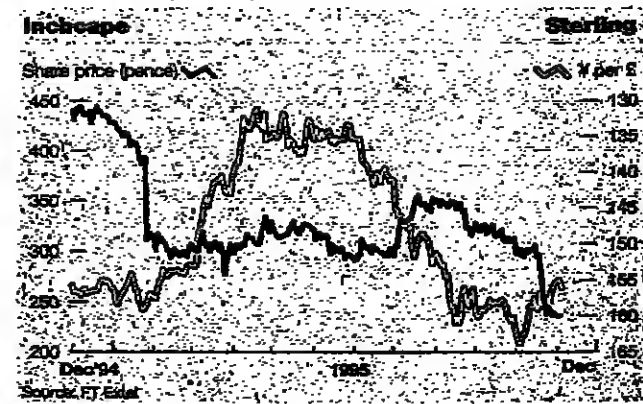
The drive to streamline Inchcape should accelerate next year with the arrival of Sir Colin Marshall as chairman

deflect Inchcape from a restructuring aimed at reviving profits and returning it to the premier league.

There is a long history of companies dropping out of the top 100 only to come steaming back, according to Mr Philip Cushing, Inchcape's managing director and the man charged with implementing its cost-cutting and disposal programme.

He admits, however, that the group will not see the benefits from the sale of loss-making businesses and some 2,000 redundancies before 1997 - when Inchcape hopes to emerge in a leaner, fitter form.

While laudable in theory, that ambition may be difficult to achieve in practice. Even after the sweeping reorganisation announced in September - when it reported first-half profits down from £125.5m to



£18.6m - the company is likely to remain over-dependent on factors outside its control: a strong yen and volatile consumer spending patterns.

Despite hedging against currency fluctuations, the strength of the yen has made Inchcape's Japanese-hedged cars more expensive than European rivals, while modest consumer demand has left the group with excess stocks.

That has persuaded Mr Cushing to increase the emphasis on alternative earnings

cost base by £30m next year and by £40m from 1997 onwards.

"We realise that we need to develop other streams of profit in the motors business and revise our expectations of the marketing and service divisions," he said.

Inchcape has announced the disposal of four loss-making subsidiaries in the marketing division and decided to focus on six core activities, including Coca-Cola, healthcare products and business machines.

"Inchcape will continue this process with small businesses falling off the back end, leaving us with fewer larger operations," Mr Cushing adds.

His drive to streamline Inchcape - developed along with chief executive Mr Charles Mackay - is expected to be accelerated next year following the arrival of Sir Colin Marshall as its new chairman. Sir Colin, who succeeds Sir David Plastow, is expected to impose on Inchcape the cost-cutting culture successfully applied at British Airways.

Although the BA chairman believes Inchcape has "taken most if not all of the action required", he is said to be determined to extract a better operating performance.

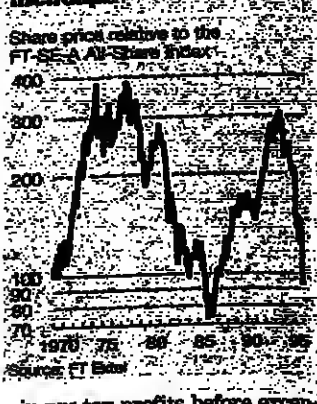
Despite its likely demise from FTSE 100, Mr Cushing says Inchcape is on the mend. Shareholders may not see the benefit for at least 18 months, but he nevertheless remains confident: "We are concentrating only on areas where there is clear room for improvement, and as that comes through the share price and market capitalisation will recover."

## LEX COMMENT Inchcape

Inchcape's ignominious expulsion from the FT-SE 100 index, due to be announced today, sets a seal on two terrible years during which its shares have underperformed the stock market by 60 per cent. Much of its problem has been external perception. In the early 1990s, it was seen as a recession-friendly stock, offering exposure to fast growing Asian markets. In reality, it is a volatile, low quality agency business, which deserves to be rated accordingly. Indeed, its management should not be held fully responsible for the decline in pre-tax profits before exceptional items from £271m in 1993 to an expected £140m this year.

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## DIGEST

### Gearhouse valued at £22m in placing

Gearhouse Group, the presentation equipment hirer, is coming to the market via a placing which will give it a valuation of £21.6m (£34.12m).

The placing of 6m shares at 200p each, will raise about £6.6m for the company and £5m for existing institutional and employee shareholders. Total number of ordinary shares in issue will be 10.75m.

Group pre-tax profits for the year ended June 30 were £1.71m (£1.15m) on turnover of £15.6m (£10.1m).

### Celebrated joins Aim

The Celebrated Group is joining Aim through a placing of 12.5m shares at 18p to raise £2.25m (£3.55m). The placing values the group, which operates two hotels and five restaurants, at £5.3m.

It reported turnover for the year to March 26 1995 of £3.95m with pre-tax profits of £320,000. About £1.6m from the placing will go into the company, with the rest used to redeem £380,000 of preference shares held by 31, after which it will have 15.6 per cent of Celebrated.

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\*Top quartile over 3, 5, 7 years and since launch (Micropal). Sources: Fund - Mercury Asset Management; Indices - MSCI, NatWest Securities; sector statistics based on Micropal Universe of European Equity Growth funds included in the Offshore Territories and Luxembourg databases. Figures from 31/5/87 to 31/10/95. (Index and sector figures only available from 31/5/87) Fund launched 13/5/87. All figures based on offer to offer prices, gross income reinvested in US dollars except MSCI Index, net dividends reinvested.

For further details on the Mercury Selected Trust-European Opportunities Fund, please call Myra Alletson in Jersey on +44 1534 600706 or fax on +44 1534 600687.

The value of investments and the income from them may fluctuate and are not guaranteed. The value of an investment may also be affected by changes in rates of exchange. Past performance is no guarantee of future performance. The Investment Adviser for Mercury Selected Trust-European Opportunities Fund is Mercury Asset Management plc (regulated by IMRO). The fund is not registered for sale to the public in all jurisdictions. This advertisement does not constitute an offer for sale in any jurisdiction in which such offer is not lawful. This advertisement is issued by the Fund's Investment Manager and Principal Distributor: Mercury Asset Management Channel Islands Ltd., Forum House, Grenville Street, St. Helier, Jersey, JE4 8RL.

## THE EMERGING MARKETS STRATEGIC FUND SICAV

69, route d'Esch, Luxembourg  
R.C. LUXEMBOURG B-28252

### NOTICE TO SHAREHOLDERS

Shareholders are informed that the prospectus of THE EMERGING MARKETS STRATEGIC FUND (the "SICAV") has been amended in order to include the following changes:

- With effect from September 15, 1995, the shares of the SICAV are valued twice a month, on the 15th and last calendar day of each month.
- As from September 1, 1995 the SICAV offers 2 categories of shares, "Capitalisation Shares" and "Distribution Shares", which are described in the revised prospectus. Existing shareholders have the possibility to have their shares reclassified into the category of their choice, without any charge.
- The registered office of the SICAV has been transferred to 69, route d'Esch, L-1470 Luxembourg, with effect from August 22nd, 1995.

Shareholders who do not agree with the proposed changes may redeem their shares in the SICAV without cost during one month period starting on December 1, 1995. In order to reflect the change of the registered office and to allow the classification of your shares into one of the above mentioned categories, we invite you to present your share certificates for exchange at the new registered office of the SICAV, 69, route d'Esch, L-1470 Luxembourg, specifying whether your shares should be classified as capitalisation or distribution shares. In the absence of a precise instruction as to the choice of the category of shares, your shares will automatically be classified as capitalisation shares, with effect from January 2nd, 1996. After January 2nd, 1996, the share certificates not exchanged will no longer be of good delivery at the Luxembourg Stock Exchange.

The revised prospectus dated August 1995 may be obtained on request at the offices of Banque Internationale à Luxembourg, at 69, route d'Esch, L-1470, Luxembourg. Yours sincerely  
The Board of Directors

## FORTE

This notice, which is published by Forte Plc, is for information only

Notice to the holders of the outstanding 6.75 per cent Subordinated Convertible Bonds due 2006 (the "Bonds") of Forte Plc (Forte)

(Convertible into ordinary shares of 25p each in Forte)

As required by Clause 7(b) of the Trust Deed dated 26th May, 1993 constituting the Bonds and in accordance with the Terms and Conditions of the Bonds, Forte hereby gives notice to holders of the Bonds that on 22nd November, 1995 Granada Group PLC made an offer (the "Offer") to acquire the whole of the issued ordinary share capital of Forte.

Details of the Offer can be obtained from Royal Bank of Canada, 71 Queen Victoria Street, London, EC4V 4QE or International Nederlanden Bank (Belgium) S.A., Rue de Ligne, 8-1000 Brussels, Belgium, or Royal Bank of Canada (Switzerland), Rue de la Gare, 27-1204 Geneva, Switzerland or Banque Générale du Luxembourg S.A., 27 Avenue Montigny, L-2551 Luxembourg, or Lloyds Bank Registrars, The Caspary, Worthing, West Sussex, BN9 6DA.

Forte Plc, 186 High Holborn, London WC1V 6TT

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## NOTICE OF FULL REDEMPTION

To the Holders of

Pasa Petroquímica

Argentina

S.A.I.C.F. y de M.

US \$25,000,000

Floating Rate Negotiable

Obligations Due 1992-1995

ISIN No. XS0035160752

NOTICE IS HEREBY GIVEN

that, pursuant to the provisions

of the Fiscal Agency Agreement

dated as of December 23, 1991,

among Pasa Petroquímica

S.A. and Banco Frances del

Rio de la Plata S.A., as Paying

Agents, the Company will re-

deem, on December 15, 1995, all

of the above-referenced outstanding

Obligations at the Redemption

Price of 100% of the principal

amount which is of US\$10,000,000

(US \$5,000,000 due December 15,

1995 and US \$5,000,000 due De-

cember 15, 1996), together with

interest accrued to the Redem-

ption Date which determines a

redemption value of US\$10,462,500.

The Redemption Price of the obli-

gations will be made and pay-able

on the Redemption Date and, un-

less the Company defaults in

making payment thereof, interest

on the Obligations will cease to

accrue on and after such date.

Payment of the Redemption

Price will be made upon presen-

tation and acceptance of the Obli-

gations, with all Coupons matu-

ring on or after the Redemption

Date, at the offices of the Fiscal

Agent or the Paying Agents as

follows:

The Bank of New York-London

44 Berkeley Street, 25th Floor

London, England WC2R 6AA

Attn: Mrs. Debbie Curran-Price

Banco Frances del Rio de la Plata S.A. Reconquista 199 1004 Buenos Aires Argentina Attn: Carlos Korczynz Banque Internationale a Luxembourg S.A. 2 Boulevard Royal L-2555 Luxembourg Attn: Coupon Department

Upon deposit of the Redemption Price, the Obligations will no longer be deemed outstanding on or after December 15, 1995 and all rights of the Holders with respect thereto will cease except only the right of Holders to receive the Redemption Price upon the surrender thereof.

The Bank of New York, as Fiscal Agent, is not responsible for the correctness or accuracy of this ISIN number either as printed on the Obligations or contained in this Notice of Redemption.

Dated: December 5, 1995

مسكن الامين











# Franc bounces back as markets back government

trend, and consumer spending under some pressure.

All of this will favour lower interest rates, which could fuel a further leg in the bond and equity market rallies. But if these continue to be domestically driven, the dollar will remain unaffected.

■ The Swedish krona finished the day slightly firmer despite the announcement by Mr Goran Persson, the finance minister, that he would "definitely not" consider running for prime minister. He had been widely tipped to take over the job next March from the incumbent, Mr Ingvar Carlsson. The krona rose 0.5% to 10.25 against the dollar.

	£	\$
Cash to	40,774.8	26,477.0
Inventory	287,515.0	134,750.0
Accounts	462,630.0	360,100.0
Equity	0.0000	0.0000
Debt	3,573.1	2,518.9
Assets	750,919.9	459,827.9

Biofilter spread	Day's high low	One month %Δ	Three months %Δ	One year %Δ	J.P. Morgan index			
347-087	10.1410 10.0770	10.0812	1.8	10.0652	1.8	9.9817	1.4	10.67
350-700	29.6020 29.4840	29.446	2.1	29.38	1.9	29.055	1.5	10.68
625-625	5.5891 5.5433	5.5572	0.8	5.551	0.7	5.5895	-0.1	10.68
791-858	4.8885 4.9274	4.7775	1.4	4.4288	1.3	4.24	1.8	87.4
145-750	5.0722 4.9482	4.9584	-0.8	4.9730	-0.9	4.9849	-0.5	10.65
170-400	22.5250 22.5250	22.5250	0.0	22.5250	0.0	22.5250	0.0	11.0
170-740	238.610 238.610	238.615	-0.7	241.615	-0.3	255.0	-7.8	66.1
139-139	18.8004 1.5840	1.9252	-0.3	1.9252	-0.2	1.5917	0.2	-
139-200	25.1500 25.1500	25.1500	0.0	25.1500	0.0	25.1500	0.0	-
170-800	20.4440 20.4440	20.4440	2.1	20.36	1.9	20.295	0.5	106.9
770-080	1.0133 1.8036	1.8043	2.4	1.5003	2.0	1.5799	1.7	90.7
770-320	6.3816 9.1514	6.3272	0.4	6.3189	0.7	6.302	0.4	97.3
770-320	151.5250 152.050	151.265	-0.2	150.5	-0.5	155.67	-3.1	29.0
770-320	123.050 122.410	123.15	-3.9	123.75	-3.7	127.275	-3.8	81.5
770-564	6.3284 9.1516	6.589	-3.1	6.5096	-2.8	6.708	-2.8	87.4
770-564	1.1754 1.1630	1.1629	3.7	1.1642	3.5	1.1278	3.3	87.4
800-010	1.5400 1.5400	1.5400	0.0	1.5400	0.0	1.5392	0.8	82.2
800-010	1.2877 1.2772	1.2736	0.3	1.2852	0.2	1.2848	-0.1	-
800-340	7.8600 7.8600	7.8600	0.0	7.8600	0.0	7.8600	0.0	-
808-300	0.9369 0.9368	0.9368	0.0	0.9368	0.0	0.9368	0.0	-
871-082	0.9863 0.9860	0.9863	0.0	0.9863	0.0	0.9863	0.0	-
773-678	1.2604 1.2665	1.2670	0.0	1.268	-0.1	1.273	-0.4	82.8
773-800	7.8600 7.8600	7.8600	0.0	7.8600	0.0	7.8600	0.0	94.8
64-584	1.3587 1.3547	1.3577	-1.8	1.3562	-1.8	1.3799	-1.8	85.9
365-365	7.7365 7.7350	7.7397	-0.1	7.7345	-0.1	7.7855	-0.4	-
365-700	34.9154 34.9000	35.01	-5.2	35.315	-6.2	36.785	-5.5	-
02-861	3.0864 3.0781	3.0801	6.1	100.065	5.4	96.5	4.8	143.5
02-861	10.510 10.510	10.510	0.0	10.510	0.0	10.510	0.0	-
02-861	2.5444 2.5444	2.5444	-0.4	2.5475	-1.1	2.571	-1.2	-
02-861	1.5474 1.5432	1.5458	-0.1	1.5592	-0.3	1.5796	-0.2	-
02-861	26.1590 26.1790	26.1790	-0.4	26.1790	-0.1	26.1790	-0.1	-
02-861	3.7321 3.7321	3.7321	-0.1	3.7321	-0.1	3.7321	-0.1	-
02-130	1.1448 1.1420	1.140	3.0	1.403	2.7	1.3775	2.5	-
02-360	3.6863 3.6863	3.6862	-0.2	3.7433	-0.6	3.9853	-0.8	-
02-800	770.100 768.300	772.75	-0.7	776.25	-3.4	794.75	-3.2	-
02-800	27.3012 27.3012	27.3012	0.0	27.301	-0.8	27.301	-0.8	-
02-800	25.1500 25.1500	25.2398	-4.7	25.4735	-4.8	26.32	-4.7	-

**NOTICE OF DISTRIBUTION TO HOLDERS OF U.S.\$19,143,000 PRINCIPAL AMOUNT OF 10-1/2% BONDS DUE 2003 ISSUED BY MLR REALTY INVESTMENTS V (B) N.V. INC., A WHOLLY OWNED SUBSIDIARY OF MLR REALTY INVESTMENTS V.N.V.**

During the semi-annual period ended September 30, 1995, MLR Income Realty Partnership V ("MLR IVP"), in which MLR Realty Investments V (B) N.V., Inc. (the "Issuer") holds units representing limited partnership interests (the "Units"), sold its investments in four shopping centers (York Marketplace, Liberty Place, Baymarket Square and Baymarket Mall), two office/distribution centers (Buckeye and North American Phillips) and two mobile home parks (A Garden Walk and Meadowbrook-Santa Monica/Chico Rental). A description of all but the sale of Meadowbrook-Santa on August 31, 1995 is provided in the most recent report to investors dated August 16, 1995 for the fiscal quarter ended June 30, 1995. Such report may be obtained from Morgan Guaranty Trust Company of New York, the issuer's paying agent (the "Paying Agent"), upon request. Further details of the sale of Meadowbrook-Santa will be provided in the annual report to investors, which will be available upon request in January 1996 from the Paying Agent.

On December 15, 1995, the Issuer, through its Paying Agent, will make available to the holders on such date of its 10-1/2% Bonds due 2003 with a principal amount of U.S.\$19,143,000 (the "Bonds") a payment of accrued interest and a partial payment of principal on such Bonds. Each holder of such Bonds will be entitled to receive a cash payment of \$189.96

amount of the Bonds. The accrued interest and the partial payment of principal represent the property sale proceeds and distributable cash distributed by MLR Realty Investments V (B) N.V. Inc.

In order to receive the above interest and principal payments due December 15, 1995, each Bondholder will be required to deliver to the Paying Agent, at 60 Victoria Embankment, London EC4T 0YF, England, Interest Coupon Certificate 19, which contains the acknowledgment of the Paying Agent. Principal Coupon Certificate 19, which covers the partial payments of principal. If you have not already done so, please submit these coupons to the Paying Agent.

**Buyer: MLR Realty Investments V (B) N.V. Inc.**  
(formerly known as MLR Realty Investments V (B) N.V.)

Dated: December 6, 1995

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**NOTICE OF FINAL DISTRIBUTION TO HOLDERS OF  
U.S.\$ 575,000 ORIGINAL PRINCIPAL AMOUNT OF 10-1/2%  
BONDS DUE 2002 ISSUED BY MLR REALTY INVESTMENTS  
(A) N.V. INC. A WHOLLY OWNED SUBSIDIARY OF MLR  
REALTY INVESTMENTS INC.**

On December 15, 1995, MLR Realty Investments (A) N.V. Inc. (the "Issuer"), direct or indirect wholly owned Company of New York, as the "Paying Agent" for the "Paying Agent", will make available to the holders on such date of the 10-1/2% Bonds due 2002 with an original principal amount of U.S.\$ 575,000 (the "Bonds") a payment of accrued interest and a partial payment of principal of \$104.69 (the "Payment") to the holders of the Bonds. The Payment will represent the accrued interest of \$104.69 (which represents all accrued but unpaid interest on the Bonds through such date) and a partial payment of principal of \$750.44 of each \$750 original principal amount of the Bonds. This payment by the Issuer to the Bondholders represents a final distribution thereof. The Issuer's use of its unpaid principal amount of the Bonds to make the Payment in MLR Income Realty Partnership II ("MLIRPII"). MLIRPII II has sold its last property and is making its final distribution to the holders of its unit in connection with MLIRPII II's liquidation. No further distributions will be made to the holders of the Bonds. The Issuer is the only entity that has been owned by the Issuer and the only source from which the Issuer is required to make payments of interest and principal under the terms of the Bonds. The Issuer will make no further payments of interest or principal (of which amount approximately 80% of the Bonds are secured by the Bonds).

and the Bonds of the Lancer from the time that such shares and such Bonds were respectively issued will have been entitled to receive appropriate distributions in the amount of approximately \$1,556 for each \$1,000 share.

In order to receive the final payment on the Bonds, each Bondholder is required to deliver to the Paying Agent, at 40 Victoria Road, London EC4Y 0JP, England, each Bond with all existing principal interest coupons attached. Any questions concerning the Bonds or the payment as contemplated herein should be directed to the Paying Agent at the above address or to MLH Realty Investments (A) N.V. Inc., Financial Center, South Tower, New York, New York 10038, Attn: Investment Services Department, Telephone: (212) 236-4930 or (800) 835-3127.

**By: MLH Realty Investments (A) N.V. Inc.**  
(formerly known as MLH Realty Investments (A) N.V.)

Dated: December 6, 1995

KURO CURRENCY UNIT RATES		1 Unit: Bank of Tokyo, Barclays and Nations Washington				
	Short term	7 days notice	One month	Three months	Six months	One year
Belgian Franc	4 1/2 - 3 1/2	4 1/2 - 3 1/2	3 1/2 - 3 1/2	3 1/2 - 3 1/2	2 1/2 - 3 1/2	2 1/2 - 3 1/2
Danish Krone	4 1/2 - 4	5 1/2 - 4 1/2	4 1/2 - 4 1/2	4 1/2 - 4 1/2	3 1/2 - 4 1/2	3 1/2 - 4 1/2
D-Mark	4 1/2 - 4 1/2	4 1/2 - 4 1/2	4 1/2 - 4 1/2	4 1/2 - 4 1/2	3 1/2 - 4 1/2	3 1/2 - 4 1/2
Dutch Guilder	3 1/2 - 3 1/2	3 1/2 - 3 1/2	3 1/2 - 3 1/2	3 1/2 - 3 1/2	3 1/2 - 3 1/2	3 1/2 - 3 1/2
French Franc	4 1/2 - 4 1/2	4 1/2 - 4 1/2	4 1/2 - 4 1/2	4 1/2 - 4 1/2	3 1/2 - 4 1/2	3 1/2 - 4 1/2
Pound Sterling	4 1/2 - 4 1/2	4 1/2 - 4 1/2	4 1/2 - 4 1/2	4 1/2 - 4 1/2	3 1/2 - 4 1/2	3 1/2 - 4 1/2
Swiss Franc	4 1/2 - 4 1/2	4 1/2 - 4 1/2	4 1/2 - 4 1/2	4 1/2 - 4 1/2	3 1/2 - 4 1/2	3 1/2 - 4 1/2
Yen	4 1/2 - 4 1/2	4 1/2 - 4 1/2	4 1/2 - 4 1/2	4 1/2 - 4 1/2	3 1/2 - 4 1/2	3 1/2 - 4 1/2

Banking	67.1	67.2	67.3	67.4	67.5	67.6	67.7	67.8	67.9	68.0	68.1	68.2	68.3	68.4	68.5	68.6	68.7	68.8	68.9	69.0	69.1	69.2	69.3	69.4	69.5	69.6	69.7	69.8	69.9	70.0	70.1	70.2	70.3	70.4	70.5	70.6	70.7	70.8	70.9	71.0	71.1	71.2	71.3	71.4	71.5	71.6	71.7	71.8	71.9	72.0	72.1	72.2	72.3	72.4	72.5	72.6	72.7	72.8	72.9	73.0	73.1	73.2	73.3	73.4	73.5	73.6	73.7	73.8	73.9	74.0	74.1	74.2	74.3	74.4	74.5	74.6	74.7	74.8	74.9	75.0	75.1	75.2	75.3	75.4	75.5	75.6	75.7	75.8	75.9	76.0	76.1	76.2	76.3	76.4	76.5	76.6	76.7	76.8	76.9	77.0	77.1	77.2	77.3	77.4	77.5	77.6	77.7	77.8	77.9	78.0	78.1	78.2	78.3	78.4	78.5	78.6	78.7	78.8	78.9	79.0	79.1	79.2	79.3	79.4	79.5	79.6	79.7	79.8	79.9	80.0	80.1	80.2	80.3	80.4	80.5	80.6	80.7	80.8	80.9	81.0	81.1	81.2	81.3	81.4	81.5	81.6	81.7	81.8	81.9	82.0	82.1	82.2	82.3	82.4	82.5	82.6	82.7	82.8	82.9	83.0	83.1	83.2	83.3	83.4	83.5	83.6	83.7	83.8	83.9	84.0	84.1	84.2	84.3	84.4	84.5	84.6	84.7	84.8	84.9	85.0	85.1	85.2	85.3	85.4	85.5	85.6	85.7	85.8	85.9	86.0	86.1	86.2	86.3	86.4	86.5	86.6	86.7	86.8	86.9	87.0	87.1	87.2	87.3	87.4	87.5	87.6	87.7	87.8	87.9	88.0	88.1	88.2	88.3	88.4	88.5	88.6	88.7	88.8	88.9	89.0	89.1	89.2	89.3	89.4	89.5	89.6	89.7	89.8	89.9	90.0	90.1	90.2	90.3	90.4	90.5	90.6	90.7	90.8	90.9	91.0	91.1	91.2	91.3	91.4	91.5	91.6	91.7	91.8	91.9	92.0	92.1	92.2	92.3	92.4	92.5	92.6	92.7	92.8	92.9	93.0	93.1	93.2	93.3	93.4	93.5	93.6	93.7	93.8	93.9	94.0	94.1	94.2	94.3	94.4	94.5	94.6	94.7	94.8	94.9	95.0	95.1	95.2	95.3	95.4	95.5	95.6	95.7	95.8	95.9	96.0	96.1	96.2	96.3	96.4	96.5	96.6	96.7	96.8	96.9	97.0	97.1	97.2	97.3	97.4	97.5	97.6	97.7	97.8	97.9	98.0	98.1	98.2	98.3	98.4	98.5	98.6	98.7	98.8	98.9	99.0	99.1	99.2	99.3	99.4	99.5	99.6	99.7	99.8	99.9	100.0																																																																																																																																																																																																																																																																																																																				
Car Dealer	59.2	59.3	59.4	59.5	59.6	59.7	59.8	59.9	60.0	60.1	60.2	60.3	60.4	60.5	60.6	60.7	60.8	60.9	61.0	61.1	61.2	61.3	61.4	61.5	61.6	61.7	61.8	61.9	62.0	62.1	62.2	62.3	62.4	62.5	62.6	62.7	62.8	62.9	63.0	63.1	63.2	63.3	63.4	63.5	63.6	63.7	63.8	63.9	64.0	64.1	64.2	64.3	64.4	64.5	64.6	64.7	64.8	64.9	65.0	65.1	65.2	65.3	65.4	65.5	65.6	65.7	65.8	65.9	66.0	66.1	66.2	66.3	66.4	66.5	66.6	66.7	66.8	66.9	67.0	67.1	67.2	67.3	67.4	67.5	67.6	67.7	67.8	67.9	68.0	68.1	68.2	68.3	68.4	68.5	68.6	68.7	68.8	68.9	69.0	69.1	69.2	69.3	69.4	69.5	69.6	69.7	69.8	69.9	70.0	70.1	70.2	70.3	70.4	70.5	70.6	70.7	70.8	70.9	71.0	71.1	71.2	71.3	71.4	71.5	71.6	71.7	71.8	71.9	72.0	72.1	72.2	72.3	72.4	72.5	72.6	72.7	72.8	72.9	73.0	73.1	73.2	73.3	73.4	73.5	73.6	73.7	73.8	73.9	74.0	74.1	74.2	74.3	74.4	74.5	74.6	74.7	74.8	74.9	75.0	75.1	75.2	75.3	75.4	75.5	75.6	75.7	75.8	75.9	76.0	76.1	76.2	76.3	76.4	76.5	76.6	76.7	76.8	76.9	77.0	77.1	77.2	77.3	77.4	77.5	77.6	77.7	77.8	77.9	78.0	78.1	78.2	78.3	78.4	78.5	78.6	78.7	78.8	78.9	79.0	79.1	79.2	79.3	79.4	79.5	79.6	79.7	79.8	79.9	80.0	80.1	80.2	80.3	80.4	80.5	80.6	80.7	80.8	80.9	81.0	81.1	81.2	81.3	81.4	81.5	81.6	81.7	81.8	81.9	82.0	82.1	82.2	82.3	82.4	82.5	82.6	82.7	82.8	82.9	83.0	83.1	83.2	83.3	83.4	83.5	83.6	83.7	83.8	83.9	84.0	84.1	84.2	84.3	84.4	84.5	84.6	84.7	84.8	84.9	85.0	85.1	85.2	85.3	85.4	85.5	85.6	85.7	85.8	85.9	86.0	86.1	86.2	86.3	86.4	86.5	86.6	86.7	86.8	86.9	87.0	87.1	87.2	87.3	87.4	87.5	87.6	87.7	87.8	87.9	88.0	88.1	88.2	88.3	88.4	88.5	88.6	88.7	88.8	88.9	89.0	89.1	89.2	89.3	89.4	89.5	89.6	89.7	89.8	89.9	90.0	90.1	90.2	90.3	90.4	90.5	90.6	90.7	90.8	90.9	91.0	91.1	91.2	91.3	91.4	91.5	91.6	91.7	91.8	91.9	92.0	92.1	92.2	92.3	92.4	92.5	92.6	92.7	92.8	92.9	93.0	93.1	93.2	93.3	93.4	93.5	93.6	93.7	93.8	93.9	94.0	94.1	94.2	94.3	94.4	94.5	94.6	94.7	94.8	94.9	95.0	95.1	95.2	95.3	95.4	95.5	95.6	95.7	95.8	95.9	96.0	96.1	96.2	96.3	96.4	96.5	96.6	96.7	96.8	96.9	97.0	97.1	97.2	97.3	97.4	97.5	97.6	97.7	97.8	97.9	98.0	98.1	98.2	98.3	98.4	98.5	98.6	98.7	98.8	98.9	99.0	99.1	99.2	99.3	99.4	99.5	99.6	99.7	99.8	99.9	100.0																																																																																																																																																																																																																																					
LES Dealer	5.6	5.7	5.8	5.9	6.0	6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.8	6.9	7.0	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	36.0	36.1	36.2	36.3	36.4	36.5	36.6	36.7	36.8	36.9	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.8	37.9	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38.7	38.8	38.9	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39.9	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	46.0	46.1	46.2	46.3	46.4	46.5	46.6	46.7	46.8	46.9	47.0	47.1	47.2	47.3	47.4	47.5	47.6	47.7	47.8	47.9	48.0	48.1	48.2	48.3	48.4	48.5	48.6	48.7	48.8	48.9	49.0	49.1	49.2	49.3	49.4	49.5	49.6	49.7	49.8	49.9	50.0	50.1	50.2	50.3	50.4	50.5	50.6	50.7	50.8	50.9	51.0	51.1	51.2	51.3	51.4	51.5	51.6	51.7	51.8	51.9	52.0	52.1	52.2	52.3	52.4	52.5	52.6	52.7	52.8	52.9	53.0	53.1	53.2	53.3	53.4	53.5	53.6	53.7	53.8	53.9	54.0	54.1	54.2	54.3	54.4	54.5	54.6	54.7	54.8	54.9	55.0	55.1	55.2	55.3	55.4	55.5	55.6	55.7	55.8	55.9	56.0	56.1	56.2	56.3	56.4	56.5	56.6	56.7	56.8	56.9	57.0	57.1	57.2	57.3	57.4	57.5	57.6	57.7	57.8	57.9	58.0	58.1	58.2	58.3	58.4	58.5	58.6	58.7	58.8	58.9	59.0	59.1	59.2	59.3	59.4	59.5	59.6	59.7	59.8	59.9	60.0	60.1	60.2	60.3	60.4	60.5	60.6	60.7	60.8	60.9	61.0	61.1	61.2	61.3	61.4	61.5	61.6	61.7	61.8	61.9	62.0	62.1	62.2	62.3	62.4	62.5	62.6	62.7	62.8	62.9	63.0	63.1	63.2	63.3	63.4	63.5	63.6	63.7	63.8	63.9	64.0	64.1	64.2	64.3	64.4	64.5	64.6	64.7	64.8	64.9	65.0	65.1	65.2	65.3	65.4	65.5	65.6	65.7	65.8	65.9	66.0	66.1	66.2	66.3	66.4	66.5	66.6	66.7	66.8	66.9	67.0	67.1	67.2	67.3	67.4	67.5	67.6	67.7	67.8	67.9	68.0	68.1	68.2	68.3	68.4	68.5	68.6	68.7	68.8	68.9	69.0	69.1	69.2	69.3

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Warrant	100	100
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Incense	118	+1	118
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J&F Inc.	\$170	59	---	63
Cap	---	38	---	43
Junior Euro	W	78	---	83
Wardco	---	67	---	88
Zero One Pl	---	59 1/4	+	59 1/4
Junior Intl Green	---	46	+1	82
Wardco	---	30	---	31
Units	H	125	---	125
Zero Pl	---	78 1/2	---	78 1/2
Richmont High Inc.	600	600	---	97
Zero One Pl	---	178 1/4	---	178
Lloyds Bank Ltd.	\$17	128	---	130
Capital	---	---	---	---

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LONDON STOCK EXCHANGE

MARKET REPORT

Wall Street strength lifts Footsie off its lows

By Philip Coggan, Markets Editor

Another strong performance from Wall Street helped London shares recover from a bout of indigestion yesterday, as the market absorbed the \$51bn placing of the government's remaining stake in British Petroleum.

Footsie was 18.3 lower at 3,651.4. But Wall Street, after opening slightly weaker, quickly powered ahead and by the close of London trading the Dow Jones Industrial Average was 32 points higher. With gilts around a third of a point stronger, and sterling also recovering against a weaker D-Mark, the Footsie was able to rally to end just 5.5 points off at 3,666.2.

The FT-SE 100 index finished marginally ahead on the day, up 0.2 at 3,989.3, with the help of strong performances from Trafalgar House and Eurotunnel.

The FTSE started strongly on the back of yet another record Wall Street close, reaching an intra-day all-time peak of 3,693.6, up 13.9, a few minutes after the opening. But the gains were quickly eroded as the market absorbed the effect of the BTR profits warning and the attempt by SBC Warburg to place the BP stake. Together the falls in BP and BTR had the effect of knocking 8 points off the leading index.

SBC Warburg succeeded in placing the stock, after some initial difficulty, with US investors reported to be supportive. BTR's downbeat statement, while not cataclysmic, was the latest in a series of profits warnings from substantial companies in recent weeks.

In spite of investor fears of a slowdown in earnings growth, the stock market has forged ahead with the help of a strong international background, buoyant institutional liquidity and hopes of interest rate reductions.

The market is looking for a cut after the next meeting between Mr Kenneth Clarke, the chancellor, and Mr Eddie George, the governor of the Bank of England, on December 13. But yesterday, Mr Alan Budd, the Treasury's chief economic adviser, said that 3 per cent economic growth could be achieved in 1996 without a cut in base rates.

US push for Unilever

Unilever, the international food and soap powder giant, put on a whiter-than-white performance after Goldman Sachs brightened its outlook for the company.

Shares in the Anglo-Dutch company, which benefited less than a month ago from corporate figures at the top of analysts' forecasts, shot forward 38 to 1,329p, a new closing high.

Goldman has turned more positive on the group and included it in its list of most heavily tipped US and European stocks. The US broker has focused on three potential plus points.

First, it believes that fourth quarter growth will be sluggish but earnings will accelerate in 1996 while the rest of the UK economy will slow down.

Secondly, it has pointed out that Mr Niall Fitzgerald, the UK chairman-elect would be carrying out an organisational review next year and would be expected to simplify the company's complex executive hierarchy.

Finally, Goldman argues that the company has underperformed the benchmark US food sector by 25 per cent, and underperformed against the leading indices in London, Amsterdam and New York.

BP bought deal One of the biggest bought deals in the UK equity market

for some years saw SBC Warburg purchase the government's remaining 1.8 per cent stake - 101m shares - in British Petroleum and place the stock with a variety of institutions.

SBC bought the stock for 508p a share - a discount of between 3 and 4 per cent to the prevailing market price - and placed it at 513p a share, a very tight margin for such a massive line of shares. It realised more than 55m on the deal.

The money was hard earned, however. Many of the sale was released at 10am and the last of the stock was said to have been placed around 2.30pm.

UK and European institutions were believed to have taken up the lion's share, with US investors happy to boomer up what was left over as Wall Street opened for business.

"I take my hat off to SBC for what was a very aggressive piece of stockbroking," said one senior trader, who insisted that the London market's appetite for BP shares was relatively limited. BP hit an all-time high of 531 1/4p on Monday, lifted by the recent uptick in oil prices since news last week that King Fahd of Saudi Arabia had been taken ill.

The BP bought deal is SBC's second big move in the oil sector since the spring. It placed Enterprise Oil's 9.8 per cent in Lasso in March.

BP shares were badly hit as the placing got under way. Opening at 531p, the stock fell back to finish 14c cheaper at 517p. Turnover by 6pm had reached 185m shares.

Conglomerate BTR tumbled after it surprised the market with a profits warning. The group said current year figures

will not meet market expectations, although they would be above last year's 2.14bn.

BTR said activity had been affected by slowing growth in Australian construction and the North American and European automotive sectors.

The shares lost more than 4 per cent of their value as they fell 14 to 320p, the day's sharpest retreat among Footsie constituents.

Analysts downgraded forecasts. The list included Hoare Govett, where Mr David Ireland cut his current year profits estimate from £1.52bn to £1.41bn, citing poor performance in the majority owned polymer operation in Taiwan.

Internationally traded stocks ignored the weakness in London and responded instead to the record performance of the Dow Jones Industrial Average in New York.

Meanwhile, the big players in the pharmaceutical sector

also benefited from some investors shifting holdings out of cyclical stocks, following the profits warning from BTR.

Glaxo Wellcome was squeezed 13 higher after the company's American Depository Receipts rose 4 1/2 to \$27 1/2 in New York on Monday night.

And the further strength on Wall Street yesterday saw the world's biggest drugs group close 25 up at 895p. SmithKline Beecham added 5 1/2 to 701p.

Hanson, the conglomerate, was saved by post-results downgrades last week, rallied 1 1/2 to 186p on turnover of 30m.

The bid speculation that surrounded betting to hotels group Ladbrokes on Monday afternoon initially died down yesterday morning, but returned just before the close.

After an official close of 157 1/2p, down 1 1/2 on the day, the stock suddenly jumped after hours, reaching 163p. Turnover was 7.9m shares.

Dealers said BZW believed to have issued a buy note. In the meantime, a bid for Ladbrokes and that an aggressive move would almost certainly come this morning along with Bass's preliminary results. Bass shed 5 to 660p in turnover of 2m shares.

Suggestions that a bid might be in the offing lifted Mercury Asset Management shares by 18 to 908p. National Westminster was one of the favourites to bid for the group.

NatWest was the best performer in banks. The shares rose 11 to 672p on good turnover of 5.3m, with James Capel, the broker, said to have recommended the stock.

Midlands Electricity raced up 34 to 965p after the much better than expected figures, including a 100p special dividend and a proposed two-for-one share split.

The biotechnology sub-sector of the market attracted attention. British Biotech, which had shut out hopes for the group's new cancer treatment slipped 110p to 1808p. It was announced that two directors sold more than 300,000 shares between them at 1760p each.

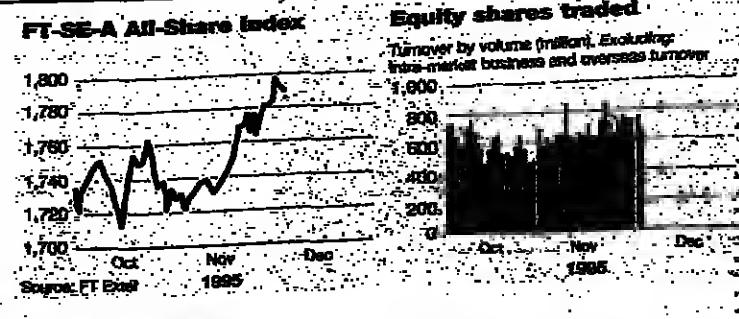
They had acquired the stock in the form of options, mostly at the equivalent of 337.41p a share.

Sieba, the international controls and appliances group, jumped 29 to 768p after announcing it had lifted interim profits from £19.5m to £144.2m, on increased sales of £1.2bn. The profits were in line with analysts' forecasts and much of the rise represented a bounce from Monday's 23p fall.

But the company's statement was seen as aggressive and proactive.

Various Footsie relegation candidates staged a last minute rally, before the indices committee meets today.

Arjo Wiggins Appleton, down nearly 30 per cent over the past month, picked up 5 to 177p. De La Rue, off by the same amount, rallied 12 to



Equity shares traded

Index	Value	Change
FT-SE 100	3989.3	+0.2
FT-SE 100 Div	3975.0	+0.2
FT-SE 100 Yield	3.73	(3.78)

Indices and ratios

Index	Value	Change
FT-SE 100	3989.3	+0.2
FT-SE 100 Div	3975.0	+0.2
FT-SE 100 Yield	3.73	(3.78)

Best performing sectors

Sector	Value	Change
1. Pharmaceuticals	+1.8	
2. Tobacco	+1.3	
3. Oil Exploration & Prod	+1.1	
4. Paper, Pkg. & Printing	+0.9	
5. Consumer Goods	+0.9	

Worst performing sectors

Sector	Value	Change
1. Other Servs. & Bus.	-2.5	
2. Telecommunications	-2.1	
3. Engineering, Vehicles	-1.8	
4. Oil, Integrated	-1.3	
5. Mineral Extraction	-1.3	

FUTURES AND OPTIONS

Index	Value	Change
FT-SE 100 INDEX FUTURES (LFFE) £25 per full index point	3989.3	+0.2
FT-SE 100 INDEX FUTURES (LFFE) £10 per full index point	3989.3	+0.2

Major Stocks Yesterday

Stock	Value	Change
BP	517.0	-14.0
BTR	320.0	-14.0
Glaxo Wellcome	701.0	+5.5
SmithKline Beecham	701.0	+5.5
NatWest	672.0	+11.0
Midlands Electricity	965.0	+34.0

FT-SE 100 INDEX FUTURES (LFFE) £25 per full index point

Index	Value	Change
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Impala Platinum Holdings Limited

(Incorporated in the Republic of South Africa)  
(Registration number 57/01979/06)

("Implats")

Results of general meeting of shareholders

FirstCorp Merchant Bank Limited is authorised to announce that at the general meeting of Implats shareholders held on Tuesday, 5 December 1995, the requisite majority of Implats shareholders approved the resolutions necessary to implement the purchase by Implats of the shares in Eastern Platinum Limited and Western Platinum Limited which it does not already hold ("the purchase"), such shares being currently owned by Lonrho Plc ("Lonrho") and Maiden Resources Limited.

The relevant resolutions will be submitted for registration by the Registrar of Companies today.

Since the purchase was also approved by shareholders of Lonrho at a general meeting held on Thursday, 30 November 1995, completion of this transaction is now subject to fulfilment of the outstanding conditions precedent, inter alia the approval of the European Commission. It is anticipated that all outstanding conditions precedent will be resolved early in the new year. Shareholders will be kept advised of developments in this regard.

Johannesburg  
6 December 1995

CONTRACTS & TENDERS

REPUBLIC OF LIBANON  
MINISTRY OF HYDRAULIC & ELECTRICAL RESOURCES  
COUNCIL FOR DEVELOPMENT AND RECONSTRUCTION  
NATIONAL EMERGENCY RECOVERY PROGRAMME  
WATER SUPPLY AND WASTEWATER SECTORS  
Amendment to the Previous Invitation for Tenders Published in Oct. 95  
Contract No. 1850

Rehabilitation of Water Supply & Wastewater Systems in Baalbeck and Nabl Chit  
The Republic of Lebanon has received funding from the International Bank for Reconstruction and Development (IBRD) towards part of the cost of the contract for rehabilitation of Baalbeck and Nabl Chit Water supply and Wastewater Systems in the Beirut valley.

Contractors who have already implemented similar projects are invited to apply and will be subject to pre qualification according to criteria to be stated in the bidding documents. The works consist of the following:

- A. Water Supply Works  
Rehabilitation and extension of the water systems in Baalbeck city and the immediate surroundings and in Nabl Chit, including: drilling and development of wells, construction of reservoirs, pumping stations and transmission and distribution mains. Indicative scope of works is as follows:
  - Drill and equip 21 boreholes, 350m deep.
  - Install chlorination & pumping equipment.
  - Procure, lay or rehabilitate 60 km of ductile iron transmission pipelines & 25km of distribution pipelines.
- B. Wastewater Works  
Construction of 20km of AC and GRP sewers in Baalbeck city and the immediate surrounding, ranging in size from 200mm to 600mm diameter.

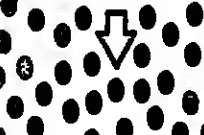
The bidding documents, including Addendum No. 1, will be available for collection at CDR offices against the sum of US\$ 1000/- in the form of a banker's certified check to the name of the Council for Development and Reconstruction starting Wednesday 29/11/1995 and will be returned before twelve O'clock noon, Beirut local time on Monday 27/12/1995 at the following address: The Council for Development and Reconstruction - Tallet Al-Serail, Beirut, Lebanon.

The main amendments to the original tender documents, forwarded in Addendum No. 1, are:

- Turnover requirements changed to \$ 1000m over the past five years
- Experience requirement: successful completion of one similar project within the past five years.

N.B.: Contrary to what is mentioned in Addendum No. 1 the bid opening shall take place on Monday January 8th 1996 same hour and place.

TO SAVE ALL  
THESE TREES WE  
HELP CHOP  
DOWN THIS ONE



Tropical hardwood trees are more  
valuable to loggers than other trees in the  
rainforest.

High prices for hardwood ensure that  
loggers have no qualms about destroying  
other trees that stand in their way.

So a WWF project in Costa Rica is  
researching ways of felling a tree without  
harming down several others around it.

And how to remove a without building  
a path through the surrounding trees.

If the rainforest are used wisely, they  
can be saved forever. Help WWF prove  
this in uniform around the world, by  
writing to the Membership Office at the  
address below.

WWF  
World Wide Fund for Nature  
28, Rue de la Woluwe  
1200 Brussels, Belgium

WWF  
World Wide Fund for Nature  
28, Rue de la Woluwe  
1200 Brussels, Belgium

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1200 Brussels, Belgium

WWF  
World Wide Fund for Nature  
28, Rue de la Woluwe  
1200 Brussels, Belgium







Have you  
Finance



#### 4. *How often?* (Frequency)

[illegible]

**4 auf einer Decke!**

[illegible][illegible]



## AMERICA

## Dow climbs with bonds, Nasdaq eases

## Wall Street

US share prices continued to rise as the bond market edged higher, although technology issues gave up some of the sharp gains made on Monday, writes Lisa Branstetter in New York.

At 12:30 pm, the Dow Jones Industrial Average was up 33.96 at 5,173.48. The Standard & Poor's 500 was 2.81 stronger at 816.49 and the American Stock Exchange composite added 0.94 at 329.27. Volume on the New York Stock Exchange amounted to 227m shares.

The Dow edged lower just after the opening bell as bonds succumbed to some profit-taking, but the index moved higher as weak economic news spurred the long end of the Treasury market to new highs. In early trading the yield on the 30-year Treasury bond was at 6.014 per cent and traders were waiting to see if the rally could push it below 6 per cent.

Meanwhile, the technology-rich Nasdaq composite shed 1.10 of the 1.48 it added on Monday, bringing the index to 1,068.64. Shares in high-tech companies were mixed. LSI Logic slipped to \$42.75, giving up 51¢ of the \$44 that it added on Monday.

Microsoft, the largest company on the Nasdaq, fell 1 1/2 to \$86 1/2. Dell Computers lost 3 1/2 to \$37 1/2 and Brother International fell 1 1/2 to \$44 1/2. Sun Microsystems added \$3 to \$82 1/2 and Adobe Software was \$1 1/2 higher at \$71.

Internet-related companies continued to soar. Netscape Communications advanced \$10 1/2 to \$160 1/2 and Spyglass gained \$3 1/2 to \$115.

Rubbermaid added \$3 or 3 per cent at \$26 1/2 after the com-

pany announced that it would reduce costs in manufacturing and distribution by reducing its warehouse space and product lines and cutting 9 per cent of its global workforce.

The company said it expected to post 1995 earnings, before the restructuring cost of about \$1 per share on estimated sales of \$2.4bn. Earnings per share after the charge would be about 41 cents. Bausch & Lomb declined 1 1/4 or 3 per cent to \$36 1/2 after forecasting fourth-quarter earnings of 40 to 50 cents a share compared to the median Wall Street estimate of 77 cents a share. The company also announced that Mr Daniel Gill, its chief executive, would ask the board for a 10 per cent pay cut.

## Canada

Toronto climbed into record territory at mid-session; the TSE 300 Composite index was 9.43 higher by noon at 4,721.30 in very heavy volume of 43.8m shares.

Royal Bank of Canada eased 3 1/2 to \$32 1/2 as the bank, Canada's largest, reported that third-quarter earnings rose to 90 cents a share, from 83 cents in 1994.

Royal Bank added that tight cost controls, higher revenues and an improving loan portfolio had generated record annual profits.

WIC Western International Communications picked up 3 1/2 to \$24 1/2 on renewed speculation that the broadcaster might still be vulnerable to a bid from CanWest Global Communications.

CanWest was flat at \$24. Methanex picked up 3 1/2 to \$51 1/2 in active trade, while recently active CanWest Technologies fell 3 1/2 to \$22 1/2.

## Mexico City easier

Mexico City slipped in late morning trade as investors took profits after the sharply higher trend of recent weeks.

By noon the IPC index was standing 14.13 softer at 2,675.45, with this week's political clash between two former presidents, Mr Carlos Salinas and Mr Luis Echeverria, souring the otherwise bullish mood in the market.

Some analysts forecast, however, that stocks could rebound later in the day if rates fell, as

expected, at Banco de Mexico's weekly primary auction.

Buenos Aires was weak in mid-session, awaiting employment data for the city and its outskirts.

The Merval index registered a decline of 3.09 at 483.97.

SANTIAGO recoded in mid-day trade as profits were taken after Monday's near 4 per cent surge on news that the IPC was to raise Chile's weightings in its stock index. The 40-share IPSA index gave up 0.6 to 99.51.

## S African industrials at high

Johannesburg rocketed higher as industrial stocks rallied on a futures arbitrage play and gold shares advanced on speculation of a rise in the bullion price.

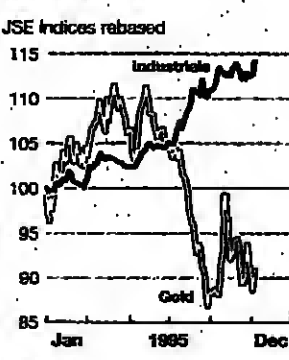
The industrial index jumped 72.1 to a 1995 high of 7,723.3, while golds added 26.4 at 1,313.8. The overall index moved ahead 63.0 to 6,045.7.

The banking sector was in favour, with Standard Bank appreciating R5 to R165 and Nedcor up R2 to R63, both setting 1995 peaks.

Among gold shares, Western Deep Levels moved forward R6 to R117, Kloof finished 90 cents firmer at R34.75 and Freegold, the country's largest producer, was 70 cents dearer at R29.65.

Commodity issues remained under pressure, with Sappi,

## South Africa



Source: FT Ede

the pulp and paper group, tumbling R5.50 or 9.5 per cent to R50.50 and Implats, the platinum producer, closing R1 lower at R75.

## EUROPE

## Belief in government takes Paris into recovery

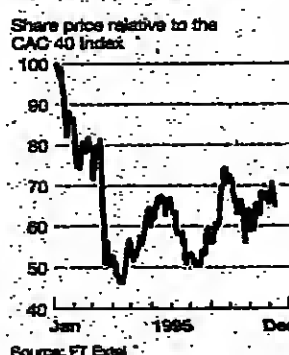
New highs for the Dow and a late recovery in the dollar were good for markets in general, and German bunds improved late in the day. But it was PARIS, yet again, which took centre stage in Europe, with its financial markets rallying on the belief that the French government would stand firm on its ambitious financial reforms, in the face of a 12-day strike which had paralysed the country.

The franc and French domestic bonds recovered, and the CAC-40 index rose 40.01 or 2.3 per cent to 1,814.87.

Turnover eased from FF4.8bn to FF3.6bn. In equities, financials most clearly reflected the recovery in bonds, with Societe Generale up FF26 at FF159.80 and UAP FF15 higher at FF126.80; but there was an exception, yet again, in Credit Lyonnais, down FF11.70 at FF288.60 on reports that the bank, bailed out earlier this year, was still under serious pressure.

Among other continuing stories, Pechiney certificates continued to close unchanged at FF207 after an intra-day fall to FF203, on an 11:10 conversion ratio, the FF187 privatisation price for its ordinary shares stayed barely respectable. Elf

## Credit Lyonnais



Source: FT Ede

Aquitaine rose FF8.10 to FF336.20 after Monday's FF14.40 drop; it emerged that two brokers had made downward adjustments to their 1995 and 1996 earnings forecasts for the oil company. Eurotunnel, meanwhile, moved up 45 cents to FF28.95 on higher traffic figures for its Shuttle service in November.

FRANKFURT recovered from mid-afternoon weakness on Wall Street and on a late rise in domestic bonds, the Dax index closing 8.26 higher at 2,269.34 after a low of 2,255.87.

Turnover rose from DM4.2bn to DM6m. BMW, unusually,

was the second most active stock, trading in DM43m as it fell DM15 to DM763.50. The car-maker strongly denied rumours that a recall action was imminent to fix a petrol tank defect on one of its models, but traders said that the story was unsettling.

In contrast, Schering lost only 28 pfennigs to DM98.35 after the overnight news that Biogen, its competitor, had received a favourable FDA recommendation for its Avonex multiple sclerosis drug in the US. Analysts noted that Schering, formerly a high flyer, was being pulled back from a high of DM14.70 this year, and that hopes for Biogen had been trimmed back.

ZURICH finished flat as some of the market's recent star performers ran into profit-taking. The SMI index, however, still registered another all-time high, ending ahead 0.1 to 3,248.2, but off the day's peak of 3,300.

Among the stars, Roche certificates fell SF20 to SF28.930, while Ciba was SF29 lower at SF1.050.

By contrast, banks were relatively resilient to the weak trend. CS Holding picked up

## FT-SE Actuaries Share Indices

Dec 5		Open		10.30		11.00		12.00		13.00		14.00		Close	
FT-SE Actuaries 100	1451.60	1450.00	1451.60	1451.60	1451.60	1451.60	1451.60	1451.60	1451.60	1451.60	1451.60	1451.60	1451.60	1451.60	1451.60
FT-SE Actuaries 200	1502.11	1500.02	1502.11	1502.11	1502.11	1502.11	1502.11	1502.11	1502.11	1502.11	1502.11	1502.11	1502.11	1502.11	1502.11

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SFR2.25 to SFR11.450 on options related buying and UBS edged SFR1 higher to SFR1.235. Oerlikon-Bührle, the arms to fashion group, softened SFR1 to SFR2.80 after its strong gains in recent days. After the bourse closed, the company forecast that 1995 group net profits would be below last year's figure of SFR75m.

SMH tumbled SFR16 to SFR61 as investors trimmed their expectations for the company's Christmas business. MILAN was unmoved by rumours that November's inflation data may be revised upwards today, and the Comit index fell 2.23 to a new low for the year of 547.73.

Analysts noted that volumes remained low as concern over the passage of the 1996 budget through parliament, and uncertainty over the date of the next general election, continued to

## ASIA PACIFIC

## Tokyo traders cautious, Roh indictment lifts Seoul

## Tokyo

A cautious mood emerged ahead of Friday's settlement of December futures and options contracts, trading activity declined and the Nikkei average closed marginally lower, writes Emiko Terazono in Tokyo.

The 225 index ended 17.84 down at 18,975.53 after a high of 18,977.58 and low of 18,822.84. Share prices rose in the morning session on Monday's rally on Wall Street, but heavy selling around the 19,000 level by domestic institutional investors dampened confidence, prompting profit-taking.

Volume totalled 388m shares, against 461m. The Toxip index of all first section stocks shed 0.45 to 1,502.26 and the Nikkei 300 edged up 0.04 to 282.35. Losers led gainers by 580 to 444, with 185 issues unchanged.

In London the ISE/Nikkei 50 index put on 0.79 at 1,290.98. Domestic institutions took profits on large-capital steels, although traders said demand from foreign investors, viewing steel stocks as interest rate-sensitive issues, seemed to support the sector.

Nippon Steel slipped Y3 to Y353, while NKK lost Y4 to Y281 after initially rising on buying by a US securities house. Shipbuilders were also lower, with Mitsui Engineering and Shipbuilding closing Y4 lighter at Y266.

Japan Energy moved forward Y5 to Y325 on active buying by individual investors. Reports that the company had begun clinical tests on an anti-Aids drug in London supported confidence.

Continued belief in a short term solution for the jusen crisis boosted bank stocks. Fuji Bank gained Y30 at Y2,150 and Sumitomo Bank added Y30 at Y2,080. Other financials, however, were lower on profit-taking.

With Tokyo Marine & Fire down Y10 to Y1,210 and Yamai Securities Y1 to Y655.

Active profit-taking by corporate investors depressed high-technology stocks, although some European brokerage houses placed buying orders at lower levels. Kyocera fell Y30

to Y8,130 and Fanuc Y80 to Y4,290. Consumer electronics were also weaker, with Sony Y50 cheaper at Y5,500.

In Osaka, the OSE average eased 7.73 to 20,315.75 in volume of 138.3m shares. Aoyama Trading, the men's suit maker, jumped Y210 to Y3,400 on active buying.

## Roundup

News that prosecutors had formally announced the indictment of the former president Roh Tae-woo on charges of taking bribes helped SEOUL ahead, but volume stayed low, suggesting that investors remained concerned about the future direction of the market. The composite index picked up 12.03 to 946.98 in volume of just 17.1m shares.

The prosecutor's office also said that the chairmen of Daewoo, Samsung and Dong A groups would be indicted without detention on charges of bribing Roh.

Daewoo Group affiliate shares plunged immediately after the prosecution announcement, then quickly rebounded. Daewoo Corp, the most actively traded stock of the day, closed Won100 up at Won9,980. Daewoo Telecom climbed Won400 to Won12,300 and Daewoo Metal was unchanged at Won1,800.

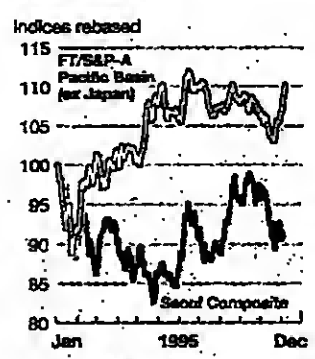
Core blue stocks were higher. Samsung Electronics rose Won5,500 to Won150,000 while Hyundai Motors climbed Won1,200 to Won38,000.

HONG KONG found the 10,000 level unsustainable and the Hang Seng index turned back from a day's high of 10,063.14 to finish 34.74 ahead at 9,975.37, as turnover swelled to HK\$4.9bn.

Analysts attributed a brief dip into negative territory in the afternoon to a technical correction, as the market had gone up too fast in recent days and profit-takers emerged after the index failed to break above the year's high at 10,063.

Blue chips again dominated the active list. HSBC rose HK\$1 to HK\$116.50, Hongkong Telecom gained 25 cents at HK\$13.60 and Cheung Kong edged up 10 cents to HK\$44.70.

## South Korea



Source: FT Ede

SINGAPORE closed little changed after profit-taking emerged in some blue chips, but foreign demand was said to have remained strong. The Straits Times Industrial Index

finished 3.88 ahead at a new four-month high of 2,168.48.

Metro Holdings, the retailer, slipped 30 cents or 5.5 per cent to \$33.15, reflecting sharp gains made on Monday.

KUALA LUMPUR ran into technical selling during the morning, after the 6.6 per cent rally over the past six trading sessions, before funds returned as buyers during the afternoon session, taking the composite index up another 6.33 by the close to 891.57.

BOMBAY was dragged lower by end of account trade and weakness in Reliance, after its decision not to pursue its demand to delist took away the speculative element which had driven the stock in recent sessions. The BSE-30 index fell 28.99 to 3,007.24 and Reliance dropped Rs21.20 to Rs206.50.

SYDNEY finished flat, hav-

ing been spurred higher early in the day by the Dow's overnight performance before profit-taking pulled blue chips back from their best levels.

The All Ordinaries index closed 0.3 up at 2,203.1 after an intra-day peak of 2,220.6.

JAKARTA remained firm in spite of late profit-taking in some large-capital issues and the composite index gained 2.86 at 496.78, after briefly touching 500 in early trade.

Foreign-triggered buying, which focused mostly on banking and consumer stocks on Monday, shifted to other sectors such as property and transport. Lipho Bank fell Rp35 to Rp3,950 on profit-taking after a day's high of Rp4,300.

KARACHI added to Monday's 3.5 per cent rise with another of 2.1 per cent, even after early gains were trimmed

appointment of a successor in Mr Cor Boonstra, one of the few Philips chairmen to come in from outside the company.

STOCKHOLM was depressed by political worries, the Affars-Varlden General Index closing 4.0 lower at 1,734.4 on the prospect, confirmed after hours, that Mr Goran Persson, the finance minister, would not be running for the post of prime minister.

Banks finished down, after opening on a buoyant note with long bond yields down again. Foresters were again the day's weakest sector, dropping 1.6 per cent as Munkejo joined the ranks of those cutting softwood pulp prices, and the shares lost SKr2 to SKr248.

ISTANBUL extended its recovery with a gain of 3.6 per cent, the composite index closing 1,448.67 higher at 41,994.20 and turnover climbing from TL1,110bn to TL1,410bn.

Bankers said that activity was led by stocks in the textile, food and glass sectors, while expectations were enhanced by Turkey's planned customs union pact with the EU, to be voted on by the European parliament a week today.

Written and edited by William Cochrane and Michael Morgan

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## FT/S&amp;P ACTUARIES WORLD INDICES

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NATIONAL AND REGIONAL MARKETS		MONDAY DECEMBER 4 1995										FRIDAY DECEMBER 1 1995										DOLLAR INDEX			
Index in parentheses show number of lines of stock		US Dollar	Day's Change %	Point	Yen Index	DM Index	Local Currency	US \$/Yen	Local % chg	Gross Yield	US Dollar	Point	Yen Index	DM Index	Local Currency	US \$/Yen	52 week Low	52 week High	Year ago % chg						
Australia (82)	188.51	1.8	182.25	120.39	140.84	189.56	1.9	3.89	184.32	179.11	11.48	139.83	198.44	191.01	157.28	197.54	191.01	157.28	177.54						
Austria (27)	171.16	-0.8	165.50	109.33	127.99	127.92	-1.3	1.63	172.62	167.25	11.80	129.73	129.65	199.98	197.48	167.50	199.98	197.48	167.50						
Belgium (33)	201.41	0.8	194.92	128.53	150.58	146.87	0.2	3.56	199.88	193.61	128.04	150.16	145.57	201.41	184.78	167.83	201.41	184.78	167.83						
Brazil (3)	140.88	-0.5	136.20	80.87	105.33	250.57	-0.5	1.58	141.55	137.10	11.81	137.10	120.75	140.88	120.75	160.75	140.88	120.75	160.75						
Canada (101)	147.52	0.8	143.01	84.47	110.59	146.28	0.8	2.54	146.86	142.05	9.34	110.16	144.59	147.52	144.59	167.50	147.52	144.59	167.50						
Denmark (33)	264.74	0.3	278.28	181.85	212.89	215.80	-0.1	2.81	283.83	274.91	11.80	213.24	215.85	299.99	238.81	242.97	299.99	238.81	242.97						
Finland (3)	215.57	-2.5	208.41	137.68	181.17	194.09	-2.7	1.85	220.22	214.71	14.61	186.10	193.37	278.11	171.13	171.13	278.11	171.13	171.13						
France (100)	167.70	-2.8	162.13	107.70	125.38	131.70	-2.4	1.85	173.5	170.27	11.81	125.38	125.38	215.85	215.85	215.85	215.85	215.85	215.85						
Germany (59)	181.36	0.2	180.00	103.05	120.64	120.64	-0.3	1.99	181.03	155.87	10.31	120.98	120.98	174.14	135.78	135.78	174.14	135.78	135.78						
Hong Kong (52)	381.78	1.0	389.10	243.83	285.44	378.15	1.0	3.86	377.90	369.03	242.06	285.02	375.34	389.39	277.40	387.40	389.39	277.40	387.40						
Ireland (5)	253.72	0.4	243.30	182.04	168.70	225.26	0.3	3.56	259.96	244.72	12.84	168.70	225.26	259.96	193.61	193.61	259.96	193.61	193.61						
Italy (58)	37.87	-0.6	36.43	48.22	50.60	80.97	-0.7	1.81	85.11	65.87	43.63	51.1	65.87	43.63	51.1	65.87	43.63	51.1	65.87						
Japan (483)	130.53	0.6	143.58	26.14	112.55	98.14	0.3	1.89	148.01	144.81	93.83	112.40	185.83	184.22	136.95	194.22	185.83	136.95	194.22						
Malaysia (5)	481.43	1.4	468.45	307.47	305.95	488.69	1.3	1.75	475.01	460.08	308.28	336.68	483.94	661.89	396.16	475.01	661.89	396.16	475.01						
Mexico (18)	1010.50	-0.7	976.84	645.39	755.50	840.25	-0.9	1.31	985.15	985.15	1017.12	985.15	1017.12	985.15	985.15	985.15	985.15	985.15	985.15						
Netherlands (19)	284.79	0.5	255.00	168.11	197.97	194.59	0.0	3.35	283.44	258.18	138.74	178.53	194.61	269.79	207.50	208.04	269.79	207.50	208.04						
New Zealand (14)	78.28	-0.5	75.88	49.28	59.53	64.12	-0.5	4.52	78.67	78.20	50.38	59.10	64.25	85.48	69.48	69.48	85.48	69.48	69.48						
Norway (33)	224.44	-0.9	216.99	143.34	187.80	193.16	-1.2	2.1	217.22	216.44	11.81	193.16	193.16	193.16	193.16	193.16	193.16	193.16	193.16						
Singapore (44)	387.57	2.0	374.70	247.52	286.77	252.49	2.0	1.61	378.91	367.97	243.34	255.43	264.74	414.53	387.57	387.57	414.53	387.57	387.57						
South Africa (43)	389.26	0.1	387.00	235.83	276.08	285.62	0.4	3.98	398.03	357.34	238.71	276.08	285.62	376.60	281.01	228.48	376.60	281.01	228.48						
Spain (33)	158.85	0.1	153.59	101.45	118.77	147.82	-0.3	3.85	158.98	153.70	116.82	144.24	158.85	153.70	124.10	132.68	158.98	153.70	132.68						
Sweden (17)	316.57	-1.0	306.08	202.16	236.69	308.06	-0.6	1.95	316.87	309.68	204.76	240.17	309.68	221.50	221.50	309.68	221.50	221.50	309.68						
Switzerland (40)	229.65	1.1	228.42	146.87	171.70	188.23	0.5	1.80	237.15	220.01	145.50	176.06	188.44	230.15	156.36	156.36	230.15	156.36	156.36						
Thailand (8)	182.88	3.6	157.47	104.02	121.78	158.92	3.7	2.56	155.95	132.02	103.53	117.92	153.27	184.59	130.15	130.15	153.27	184.59	130.15						
United Kingdom (20)	228.27	-0.1	218.78	144.51	168.18	218.78	-0.2	1.62	228.42	219.20	145.02	168.18	218.78	228.42	219.20	168.18	228.42	219.20	168.18						
USA (638)	250.89	-0.1	242.63	160.28	187.63	250.96	-1.1	2.23	248.27	240.48	159.02	188.24	248.27	240.48	188.24	188.24	248.27	240.48	188.24						
Americas (78)	228.71	-1.1	221.11	146.07	170.89	192.22	-1.1	2.23	228.33	219.22	144.97	170.89	192.22	228.71	170.89	170.89	192.22	228.71	170.89						
Europe (78)	195.56	-0.2	188.08	124.89	145.21	167.17	-0.5	3.04	196.02	180.86	125.56	144.27	167.17	187.87	150.20	150.20	187.87	150.20	150.20						
Nordic (32)	282.10	-0.2	278.11	171.13	194.09	215.57	-0.2	2.44	282.10	278.11	171.13	194.09	215.57	282.10	278.11	171.13	282.10	278.11	171.13						
Pacific Basin (832)	160.91	0.9	155.57	102.77	120.31	106.64	0.5	1.23	156.86	154.98	102.96	120.31	106.64	160.91	102.96	102.96	160.91	102.96	102.96						
Europe-Pacific (188)	175.34	0.3	169.48	111.82	131.02	126.57	0.1	2.04	174.72	168.23	111.81	131.02	126.57	175.34	131.02	126.57	175.34	131.02	126.57						
Asia-Pacific (188)	175.34	0.3	169.48	111.82	131.02	126.57	0.1	2.04	174.72	168.23	111.81	131.02	126.57	175.34	131.02	126.57	175.34	131.02	126.57						
Brazil-Euro (531)	174.83	-0.3	169.45	111.87	130.73	138.46	-0.9	2.49	175.88	174.83	138.46	138.46	138.46	174.83	138.46	138.46	174.83	138.46	138.46						
Pacific Excl. Japan (98)	206.35	0.5	201.71	166.28	164.86	226.76	0.1	3.22	206.35	204.78	164.86	226.76	206.35	204.78	164.86	226.76	206.35	204.78	164.86						
World Excl. Japan (238)	179.33	0.2	175.34	131.02	137.68	137.68	0.1	2.12	175.34	174.14	137.68	137.68	175.34	174.14	137.68	137.68	175.34	174.14	137.68						
World Excl. US (214)	196.54	0.7	190.02	125.62	165.83	231.13	0.5	2.15	196.54	196.54	125.62	165.83	231.13	196.54	125.62	165.83	231.13	196.54	125.62						
World Excl. Japan (1917)	228.50	0.6	218.57	144.85	169.34	212.48	0.6	2.19	228.50	219.69	144.16	169.34	212.48	228.50	219.69	144.16	228.50	219.69	144.16						
The World Index (2400)	199.16	0.8	195.55	127.20	148.90	181.76	0.5	2.87	199.17	191.66	126.77	148.90	181.76	199.17	191.66	126.77	199.17	191.66	126.77						



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# Information Technology

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lifts Seoul

**B**y almost any measure, the launch of Windows 95, Microsoft's new desktop computer operating system, in late August has been a success.

In the first two months after its release 7m copies of Windows 95 were sold worldwide and, despite some early negative press reports, the switch appears to have gone remarkably smoothly.

According to a study prepared by Techscan, a US-based market research firm, more than 91 per cent of Windows 95 users are 'satisfied' or 'very satisfied' with the product and Microsoft's help lines have not been swamped with angry callers.

But while Windows 95 offers a number of distinct advantages for home PC and portable computer users in particular, many Windows 95 corporate users have been left wondering which operating system to adopt.

Should they stick with Windows 3.x, upgrade to Windows 95 immediately, jump straight to Windows NT, Microsoft's fully 32-bit operating system - or wait for future versions of future incarnations of both systems including a version of NT called 'Cairo'?

Such confusion is understandable given the technology involved. The mixed signals Microsoft has sent in the past about its future operating system strategy, and the target markets for particular products.

In fact, Windows 3.x, Windows 95 and Windows NT are three entirely different operating systems which

## Do all roads lead to Cairo?

Microsoft's new operating system, Windows 95 - launched so spectacularly this year - is just one of the upgrade routes open to the corporate user. Paul Taylor discusses whether companies should adopt Windows 95 now or wait for the Cairo version of Windows NT

since similar graphical user interface-style 'front-ends' and share some sets of applications.

In the corporate market, the most popular flavor of Windows is the past has been Windows 3.11. Also called Windows 3x Workgroups - which was launched four years ago and is designed for multi-user networking.

Windows 3.11 uses older and slower 16-bit computing technology while its main rivals, IBM's OS/2 and the Apple's Macintosh operating system, moved to faster and more flexible 32-bit technology some time ago. Nevertheless, Windows 3.11 has been around for so long that many people are very familiar with it, and it runs fairly well on even modest PCs and, aside from occasional system 'crashes', is fairly robust.

Windows 95 is designed to replace 3.11 with a new 32-bit architecture, an improved look and feel and a number of new and attractive features for both the consumer and corporate markets.

However, some companies and other organisations are still nervous about switching to an early version of Windows 95 and have

been waiting for Microsoft to release a system upgrade - something Microsoft has said is not planned.

Other customers are constrained by their hardware since, although Windows 95 has been designed to be backwardly compatible, its performance suffers if run on anything less than a high-speed 486 with at least 2MB of Ram.

As a result, many organisations are having to consider costly system upgrades or treat the migration to Windows 95 as part of a more comprehensive IT plan.

Despite these reservations more than 150 large companies across the globe signed up with Microsoft to purchase and deploy Windows 95 in the first eight weeks after it was launched.

Microsoft claims that more than half its top-1,000 US corporate accounts have already moved beyond the pilot stage to deploy the new operating system across their businesses.

Among the companies and other organisations on both sides of the Atlantic which have adopted the new operating system are 3M, British Petroleum, the British Broad-

casting Corporation, Cisco Systems, Deloitte & Touche LLP, Dow Chemical, Ford Motor, Marks & Spencer, the National Aeronautics and Space Administration, Owens-Corning, Sprint, Toyota and Turner Broadcasting.

These early converts will be relieved to discover that a report released last week by International Data Corp (IDC), the market researchers, confirms that users of Windows 95 outperformed Macintosh and OS/2 users, in terms of productivity.

The IDC test indicates that users of Windows 95 completed common tasks in 19 per cent less time than Mac users, and with greater overall accuracy," says David Card, the report's author and director of PC software research at IDC.

The other current choice for corporate users of Windows is NT (originally NT stood for New Technology). Windows NT and Microsoft BackOffice, an integrated package of server software designed to work with Windows NT Server, is the cornerstone of Microsoft's long-term push into the heavy-duty corporate computing environment,

an area which used to be dominated by proprietary mainframe systems and subsequently, as open systems were adopted, by the various varieties of Unix.

NT looks more like Windows 3.x but behind the scenes is a fully-fledged 32-bit operating system designed specifically for corporate client/server networks and mission critical computing.

After a somewhat shaky start, the current versions of NT - NT Workstation and NT Server - have proved extremely robust, reliable and powerful and, unlike Windows 95, run on a variety of different platforms, not just machines equipped with Intel microprocessors. They are also scalable - they can work with multiprocessor systems. However, it is even more hungry than Windows 95 in terms of hardware requirements - a minimum of 16MB of Ram is required - and Windows 95 runs older 'legacy' 16-bit applications far better than NT.

Corporate confusion over which operating system to pick is apparent in a recent Forrester Research survey among US companies. Forty-five per cent told the research firm that they would go completely

to Windows 95, and 14 per cent reported choosing NT as their desktop standard. An additional 19 per cent said they would migrate to Windows 95, while 22 per cent had not decided between one or the other.

Among the comments, one chemicals company told Forrester: "There is strong competition between Windows 95 and NT. Windows 95 was built with compatibility and has many features NT lacks, but we recognise that NT is a better operating system. However, NT's high hardware requirement is a strike against it."

A forest products company executive told the researchers: "I see going to NT as bypassing another upgrade path. Even if we don't get the new visual interface of Windows 95, we will have avoided another migration in the next couple of years."

Forrester noted that "most users do not understand Microsoft's long-term operating strategy," in fact, Forrester's advice is typically blunt: "Go to Windows 95. Don't consider NT for the common desktop, and don't stay with Windows 3.1."

Forrester gives the following reasons: Microsoft's desktop operating system strategy will rest on Windows 95; Windows 95 offers lower total cost of ownership; Windows 95 will improve productivity and "you have no choice."

Nell Holloway, director of organisational sales for Microsoft in the UK, agrees. He says that for most mainstream companies Windows 95 will be appropriate, but for those organisations with the most demanding business uses, Windows NT is the right option and the real alternative to Unix workstations.

Either way, he argues that corporations should upgrade to Windows 95 or NT because they need to move to systems that support the 'Win 32' and OLE (Object Linking and Embedding) standards.

Both Forrester and Mr Holloway dismiss suggestions that NT and Windows 95 will be merged into a single operating system anytime soon, although Mr Holloway says that features from both operating systems will be added to those of the other.

For example, Windows NT will inherit a Windows 95-style interface and some of its management features next year, while later versions of Windows 95 - two projects code-named 'Nashville' and 'Memphis' are under way with releases planned for summer 96 and 97 respectively - will incorporate some NT features.

Over time, Windows 95 is expected to be further refined to serve

Continued on next page

The IT Manager's guide to a better life; forewarned is forearmed.

This is an advanced warning. Unbeknownst to you, a small furry

mascot has fallen down the back of a PC and blocked the fan. The

processor is overheating. Now unless you have a Compaq Deskpro

with Fault Management, or highly developed 6th sense, you've

got about 5 seconds before you have to explain to your MD that...





By Jola Shillingford

■ Interview with Andrew Grove of Intel

## Seeking a share of users' viewing hours

"By 1998, personal computers for the home will out-sell televisions to become the most popular consumer device, but they won't look like the PCs we use today."

— Dr Andrew Grove, president and chief executive officer of Intel, the US semiconductor giant.

Intel, which has made its billions from selling faster and faster computer chips, is betting that "the PC will become the communicating PC." Grove predicts that by the second half of 1996, PCs "won't just be multimedia" — combining sound, video and computing. They will also provide:

□ Video-conferencing over standard phone lines.

□ Digital modems for single-line voice and data.

□ Three-dimensional software support for modeling and virtual reality.

□ Digital imaging software support.

□ Templates for creating Internet home pages for the World Wide Web (WWW), a sophisticated graphical interface which allows visual as opposed to simply textual com-

munication. These features will be available on personal computers similar in price to today's multimedia PCs because Intel plans to build many of them into its Pentium Multimedia Extensions — "these chips will give an estimated 20 to 40 per cent improvement in performance (over standard Pentium chips), providing the hottest Internet PC and the best games machine," says Grove.

For example, "a simultaneous voice and data modem (for communications) costs around \$500, but once Intel has packaged many modem features into its chips, a device containing the remaining features should only cost around \$50," he says.

At this price, it would be feasible to include voice and data modems in most PCs, enabling them to communicate. Video-conferencing — using Intel's ProShare technology — could also be built in.

Grove believes that commu-

nications and the Internet, the global electronic mail and information network, are "so big, so encompassing, they have the power to transform the way we do business."

He adds that "a lot of so-called 're-purposing' — for example, creating a movie and re-using it — will be used into communications." And wider availability of video-conferencing and simultaneous voice and data would be invaluable for computer support.

Communications and the Internet are also changing the way Intel does business. Primarily known for chips such as the 386, 486 and Pentium, Intel's move into the modem market, will alarm incumbents.

Grove believes that by helping to lower the price of communications components, Intel will create a bigger market and everyone will benefit — including modem suppliers, even if they are only selling a sub-set of what there were before.

But the modem market is so fragmented, that Intel — which stopped selling modems last year when prices dropped — will almost certainly benefit more. A few years ago, Intel entered the market for motherboards — the 'guts' of a computer — and now has the larg-

est share. Another Intel Internet project is its InterCast system. This enables home PCs to receive television signals with additional information — about Internet sites — embedded in them. Thus, users might, for example, watch a food programme and be able to click on a symbol that automatically links them up to an Internet site containing the recipes. The link would be made via the user's phone and modem.

The InterCast system is expected to cost \$500 (£330) and be available in 1996. Entertainment companies are collaborating with Intel to provide programming, while personal computer companies will be making InterCast-enabled PCs.

### Investment in chip research

The company's ability to develop new products and move into new markets is impressive and necessary if it is to maintain its high profits. In its latest quarter it made profits of \$831m on revenues of \$4.2bn. Profits for 1994 were \$2.9bn on turnover of \$11.5bn.

Gordon Moore, who co-founded Intel in 1968, developed Moore's law, which says that "in about every 18

months, performance is doubled, and prices halved for microprocessors." Intel's huge research and development budget (R&D) has helped the theorem come true. Its projected R&D spend for 1995 is \$1.3bn.

But its Pentium chips seem to be reaching the limits of what can be achieved with the current generation of PC software. Its recently-launched Pentium Pro processor (previously code-named P6) is twice as fast as standard Pentiums for true 32-bit applications. Yet for most PC software is 16-bit: even Microsoft's latest PC operating system, Windows '95, includes some 16-bit code.

To begin with, the Pentium Pro, will be used in high-powered server PCs, such as those used to run networks or provide information on the Internet — an area currently dominated by Sun. The chip will also support symmetric multiprocessing, where several processors work together to provide more power.

After doing time in the market for high-powered servers, the Pentium Pro, which runs at 133 Mhz, will become cheap enough to be used in standard PCs — though probably not before Christmas, 1996.

Grove says that among most Pentium PCs, 120 Mhz will become the norm. Pentium Multimedia Extensions will follow, with the Pentium line peaking at around 150 Mhz. The company has also entered into an alliance with Hewlett-Packard to develop new microprocessor technologies, such as 64-bit chips.

### Sustaining the vision

Grove's motto is said to be: "Only the paranoid survive" — not too surprising a motto for someone who escaped to the US from Soviet Hungary in 1953, aboard a reconnaissance World War Two ship, full of refugees.

Yet he is more of a risk-taker than this motto might imply,

continuing to pump money into R&D even during recessionary periods. This seems to have paid off. The company's revenues have grown nearly six-fold since Grove took over as chief executive in 1987, and it has risen from 10th place to number one in the industry.

Grove is investing heavily in expanding the company's manufacturing capacity, betting that the company will be producing over 100 million chips by 1998. He is crystal clear about where Intel is going — and very thorough and incisive about strategy. He has a PhD degree from the University of California, Berkeley and lectures at Stanford Graduate School of Business.

Limited competition — the company's chips are used in 80 per cent of the world's personal computers — has sometimes led to criticisms from PC-makers that Intel keeps prices too high. However, Grove's view of the company's relations with others in the industry is pragmatic: "It depends on which company and what stage they are at in their product life-cycle," he says. In other words, if they need Intel, they're his friends.

As its strategy changes, the company may have to seek closer ties, with companies with equally large power bases in entertainment and telecommunications. Yet Grove is already emerging as a key figure in the convergence of telecoms, computing and entertainment. He gave one of the keynote speeches at Telecoms '95 in Geneva, the European 'Olympics' of the telecommunications world. Meanwhile, Vanity Fair magazine has listed him as "the number seven architect" of the information age, out of a list of 50. Rupert Murdoch is ranked top.

Even his goals extend beyond the computer industry. It is no longer enough for Intel-based PCs to out-sell television sets: by the year 2000, Grove wants users to spend at least 10 per cent of their viewing hours in front of an Intel-based personal computer.

## A bewildering choice on the road to Cairo

Continued from previous page

the standard corporate desktop, home, home office and portable markets while Windows NT continues its assault on Unix — a battle Microsoft claims it is winning, particularly in the financial services industry.

Microsoft clearly recognises that the bulk of the \$65bn a year worldwide software market comprises line of business applications and infrastructure software which is currently running on mainframes, minicomputers and workstations.

"The remit," says Mr Holloway, "is to get a healthy share of that."

Windows NT is beginning to chalk up some real successes in this battleground, including the endorsement of Joseph de Feo, Barclays' group technology director, who said recently that it was "difficult to justify the time and effort we have put into an open systems solution that never seems to

arrive." Indeed, Dataquest, the market research firm, predicts that between 1995 and 1999, Windows NT shipments will double each year reaching 15m by the end of the period, considerably outpacing Unix sales.

Microsoft will rely on the next big release version of NT called 'Cairo' to help it achieve this victory. Cairo will be shipped in the first half of 1997 and is described by Mr Holloway as "the evolution of NT which provides locational transparency for end-users."

Cairo versions of Windows NT Workstation and NT Server are expected to be smaller and faster than their predecessor and to include an advanced 'object' file system with the goal of enabling Microsoft to offer "a new distributed computing approach to solving business problems."

■ Readers' views are invited. Write to the FT-IT Review: see address in panel below.



### Information Technology Review

Commissioning editor: Michael Wiltshire

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Paul Taylor, Claire Gooding, John Kavanagh, Jola Shillingford, Louise Kehoe, Tom Foremark, Michael Dempsey, Philip Manchester, Geoffrey Wheelwright, Julie Harrett, Rod Newing, George Black and Lisa Branstetter.

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Picture research: Matthew Glynn

■ The 1996 programme: Please see the panel on page 16 of this current issue for key themes planned for the FT-IT Review in 1996. The next issue will be on Wednesday, February 7, 1996. Copies of the detailed editorial synopsis each month tested is available six weeks in advance. For details, contact:

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4 FT - IT

Small office/home office

By Tom Foreman in Cambridge

## PC sales help boost on-line services

Continued from previous page

wireless keyboard. The Enviro, like most consumer PCs, also includes a fax-modem device. These have helped fuel popular interest in the Internet and commercial on-line services such as CompuServe, America Online and Prodigy. (see pages eight and nine). In the US, most home PC owners use their machines for household administration, including completing tax returns and electronic home banking, using a modem.

Research from Compaq in Europe confirms that consumer PC-owners are using their machines for a wide range of activities. Mr Toon Bouten, regional director of Compaq's consumer group, says, "the single most important use is multimedia, including education and entertainment." Other important reasons for owning a PC in the home include telecommuting or teleworking, using a modem or a high-speed digital ISDN line - see report, page five.

Compaq's research also highlights that consumer PCs must be easy to use. For example, Compaq home machines present the user with a tutorial and easy interface when they log on, as well as word-processing and spreadsheet software, a CD-ROM based encyclopedia, and initial subscription to the CompuServe online service.

## Software sales

Aside from the computer hardware manufacturers, the surge in consumer PC sales has also benefited software companies such as Microsoft which sells 60 software packages/CD-ROM titles, including its highly acclaimed Encarta encyclopedia aimed at this market, accounting for over 15 per cent of its sales.

Meanwhile, manufacturers of other types of office product are also turning their attention to the small office/home office (SoHo) market.

New products aimed at the home market include low-price colour inkjet printers from manufacturers such as Epson, Hewlett-Packard and Canon, an innovative desktop colour scanner from Logitech, cut price laser printers from Sharp and others, and multifunction devices which combine most of the functions of photocopiers, scanners and printers.

## PC architecture

# A divide emerges between home and office PCs

Home PC-buyers in the US are choosing powerful Pentium-based systems as users seek more multimedia capabilities

A s millions of new customers buy personal computers for home use, the PC architecture is showing splits between models designed for the home and those for the office - and this divide will become wider.

It used to be that the home PC differed very little from the office PC. It used the same type of microprocessor, monitor and keyboard, but would be bundled with different types of programs. The home PC was also less powerful than an office PC - but now the situation is different.

According to Intel, the leading supplier of PC microprocessors, home PC-buyers are choosing powerful Pentium-based systems and they expect more multimedia capabilities, such as larger colour monitors with fast CD-ROM drives and 16-bit audio capabilities. Office PC buyers are generally more conservative, willing to use

less powerful systems and not willing in most cases, to pay for additional multimedia capabilities.

"I think that over time, you will see a more definite split between home and business systems," says Steve McCleady, vice president and general manager of Intel's Internet Technology Labs. The differences are in communications technologies and also in the types of microprocessors used.

While home PC-buyers are looking to use their systems for entertainment, as well as office work which they bring home, PCs used in the business office are usually engaged in routine work on word processors and spreadsheets where fancy graphics capabilities are not necessary. Home PCs are moving toward the provision of faster graphics, with three-dimensional graphics support, fast quad-speed CD-ROM drives to support games software and 16-bit audio capabilities for CD-quality sound.

NEC Technologies recently announced the Ready Player LE which illustrates this trend toward powerful multimedia home PC systems. It is designed as a computer games platform, as well as for home office use. It runs on a powerful 133 MHz Pentium

microprocessor and includes a six times speedier CD-ROM drive, support for the MPEG-1 digital video format, the new Microsoft SideWinder 3D Pro digital-optical joystick and a 48-watt Yamaha surround system with a "subwoofer".

Intel is working on a new version of its Pentium chip, the P54C which is specially designed to offer improved multimedia support. And it has developed a technology called Netive Signal Processing which will allow users to run video and high fidelity sound on their systems without requiring additional specialised hardware.

There are also several chip companies that are developing co-processors designed to make the home PC into a more sophisticated platform for a wide range of services. Chromatic Research has developed the Impact media engine which helps a PC handle 3-D graphics, audio, fax, telephone and video-conference applications. And Philips Semiconductor has developed the TriMedia chip which offers similar capabilities by adding multiple high digital signal processors that can handle multiple streams of digital video and audio.

Microsoft is also supporting this trend, by improving the multimedia capabilities of Win-



Accelerating to the information superhighway: a new multimedia learning programme, 'Easy Tutor: Get Connected 96', an interactive CD-ROM package, costing £20, makes it easier to surf the Internet. Another 'Easy Tutor' programme, called 'Learn Windows 95', designed by CRT Multimedia and costing £40, has already sold more than 100,000 copies

dows 95 with its DirectX technology which improves graphics and sound performance. These are also chip companies developing co-processor chips which are designed to boost PC graphics performance and add communications capabilities for applications such as interactive television and high-speed Internet connections.

With the huge market potential of home PC systems, the

demands of the home user are now driving the development and the direction of PC technologies.

That is not to say that business users will not benefit from the improvements in multimedia capabilities in PCs. Many companies see this as a way of offering multimedia-based training to staff members directly to the desktop over local area networks. And desktop video-conferencing is

another valuable application that is made easier with the new PC multimedia technologies.

Generally, business users are slower to adopt to these technologies and many buyers would rather not pay extra for features that are of little use. But they will have little choice, since the economies of scale dictate that it is cheaper to include multimedia capabilities in a PC than to keep them out.

Distinctions between home and office PCs will be in terms of connectivity: for example, office PCs will have built-in Ethernet networking capabilities while home PCs will feature multimedia accelerator chips, different case designs and faster CD-ROM drives.

Home PCs are more likely to come equipped with add-on cards that allow users to view TV programs through a built-in TV tuner. The trend is to develop the PC into a multi-function device that not only offers the traditional computing functions but also turns it into a hybrid system offering a stereo system, TV, telephone answering machine, video telephone, fax, and video game player.

A recent survey of home PC users by US PC manufacturer Packard Bell shows that young adults between the ages of 25

and 34 are driving demand for these "all-in-one" PCs. According to the survey, this demographic group want "a PC that does it all: They want to watch television on their monitor, access a self-contained video system and Internet via telephone and video, with friends and colleagues."

"Young people see the PC as a tool that can satisfy almost any home entertainment and interactive need," says Mal Ransom, vice president of marketing, Packard Bell. "Young adults have also always been the segment of our society that is most open to changes in technology."

About 58 per cent of 1,700 people surveyed want a built-in music system in their PC that can also be used to control all of their stereo components.

US PC manufacturers with strong home PC businesses - such as Packard Bell, Compaq Computer and Apple Computer - are rushing to create increasingly more versatile home PC systems. They are supported by companies such as Intel with its Intelcast technology which allows users to surf the Internet and watch a TV program at the same time. These trends are helping to bring a further split in the architecture of the home PC and the office PC.

## Computer printers

# Less hassle for home users

Manufacturers are removing the quirks that have so often baffled the owners of small office printers

Mankind does not have a happy relationship with computer printers. Persuading a printer to recognise commands from a PC keyboard and produce a sheet of paper that mirrors the image on the users screen has often involved prolonged bouts of cursing. Yet the printer remains one of the most important components of any small office.

Underneath the barrage of publicity surrounding the Internet and the common assumption that all businesses are equipped to handle electronic mail, the printed page has held its ground. The paperless office remains an IT mar-

keting myth. Most people still want a physical document, and printer quality equals presentation.

Canon, the printer giant, has learnt some lessons from consumer dissatisfaction. Its home printer range used to feature a row of minuscule dip switches. A novice user might be confronted with a dozen of these tiny plastic fingers, each of which had to be shifted to one of two positions, using a pen-tip. The precise configuration depended on the computer type, and getting the switches aligned was not always straightforward.

Tim Potter, product development analyst at Canon in the UK, admits that this is outdated technology - users are demanding systems that work as easily as any other consumer electronic product. Canon now builds the dip switch function into the printer's own software. The box that turns digital data into

hard copy has assumed the functions of a computer. The latest Canon small laser printer, the LBP 460, sells for £349 and is described by Potter as resembling "a chubby bread-bin."

It is built to work with Microsoft Windows and features a program designed to allow set-up to take place from the PC keyboard. The hard work of 'educating' the printer to 'talk' to the PC has been transferred from the customer to the PC processor. Since every PC now contains surplus power, it makes sense to exploit this spare capacity rather than leaving the customer to work things out.

Older PCs with 386 chips will be slowed down by this added burden, but Canon has concentrated on ironing out the quirks that annoyed users of previous generations of printer. Most people who see it are amazed at the zero warm-up time. Waiting for a

display to signal that the printer is ready to work is another psychological block to making headway with office work. These small drawbacks are the very barriers that interrupt a home-worker's day and reduce his productivity.

Canon has put a lot of thought into the world of the individual user. Potter notes that a compact machine is important in a market where space is at premium. Toner for the laser process that 'fires' print on to paper costs £50 for around 2,500 pages with this machine.

## Solution

Mike Corley, distribution support manager at Sun Alliance Insurance, issues his life assurance consultants with Toshiba laptop PCs and Canon BJ30 portable printers. The consultants want to identify the right financial product for clients while carrying an office in a briefcase.

Sun is buying 600 printers for its mobile workforce and the choice of a printer (using £12 inkjet cartridges) was made after assessing several rival products. This process, Corley recalls, amounted to reaching a balance of capital costs against quality of output.

Colour capability has reached out to the small office printer. Citizen, the £3.8bn Jap-



Above: The Sharp JX-9200, one of smallest laser printers on the market. Left: Tim Potter, product development analyst at Canon - 'users expect printers to work as easily as any other consumer electronic product'

anese precision engineering group, sells a colour inkjet printer for £279. Inkjet technology, also referred to as bubble-jet, involves a cartridge where ink is heated and forced out of a small nozzle on to the page.

Andrew Martin, European group product manager at Citizen, points out that the declining price of printer components has brought sophisticated capabilities within reach of home market. "Five years ago, printers were built like tanks. They needed a lot of metal, but the quality of the plastic available has improved, so we've replaced metal parts," he says.

Automated production lines, assembling parts that snap together with screws, have helped this trend. And the demand for printers has enlarged the market and brought down costs. Volume sales and software, such as

Windows, have driven the market, says Martin.

Citizen's Project 2C can be used with either colour or monochrome cartridges. The difference is price and longevity. Two black and white cartridges cost £5 and should be good for 800 pages. A colour cartridge lasts for 100 pages, and costs £19.

Chris Hill, a research fellow at Nottingham University, has installed a Project at home last year. He uses both types of cartridge - "with colour you have to live with the smaller capacity. But it's very easy to switch cartridges. I use colour for occasional letters," he says.

Re-supply is not always easy. Hill substitutes an Olivetti cartridge when Citizen components are hard to obtain. And Hill admits that the inkjet cannot match his office laser printer for quality or convenience - "but for domestic

users, that's not the point. When I bought it, there was no cost justification for buying a laser for home use."

The market for these products is impressive. Manassas Tally, the German printer specialist, recorded a 23 per cent surge in UK revenues for the first six months of this year; 1994 turnover was £39.6m. Inkjet sales soared by 83 per cent in the first half of 1995.

This kind of growth is good news for consumers. The cost of high-quality home printing should continue to decline, with lasers - such as Canon's LBP 460 - starting to edge into the bubble-jet inkjet price category. Whatever the acceptance of e-mail and the Internet, a well-presented printed page remains high on the shopping list of most home PC users. The printer industry can now accommodate that need at a very reasonable price.

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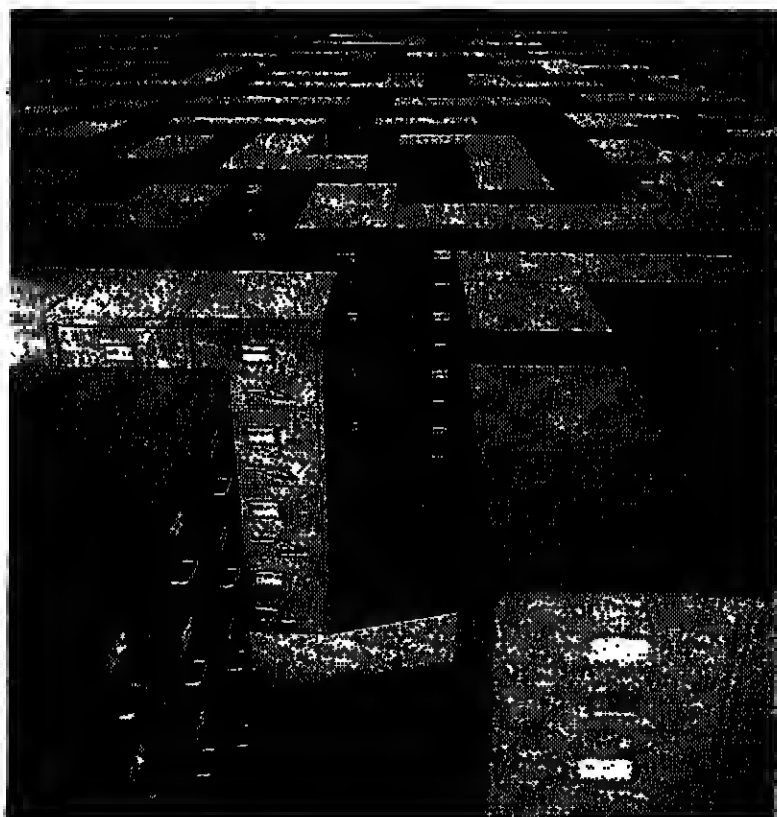
Most of the customer enquiries that come down your telephone line seem relatively simple. "What's happened about my claim?" Or, "I wrote two weeks ago, did you receive my letter?" and so on. However the problem for many companies is that they need to search a combination of manual files, archives and computer systems to get a total picture of any one customer before they can give a complete answer. And that can take time and give the impression of poor customer service.

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## Communications devices for PCs

# Modem demand hots up

The home market is where the action is in the modem market - but many of the older suppliers were late to spot this trend

Demand for modems (communications devices for PCs) has grown on the back of hype about the Internet, the global e-mail and information network. This has brought new suppliers into the European market, such as US Robotics.

When it, and a lot of Taiwanese companies, began selling modems priced for the home, long-established suppliers effectively became "me-too's". They had to expand manufacturing, while bringing down prices, and this caused financial problems for many of them.

Growing competition in the home market is better news for users, however. In Europe, the average selling price of a modem has fallen from \$945 in 1992 to \$375 (£287). In 1994, according to Dataquest, this buys a modem operating at 28,800 bits per second (bps).

Modems operating at half this speed (14,400 bps) still sell in larger quantities to the home market because they are cheaper (£100 - £180) and often come bundled with free access to online services, such as CompuServe or the Internet. This is likely to change in 1996 as suppliers like CompuServe start to offer 28,800 bps access to their services at the end of this year. In fact, any one planning to use the Internet for anything but electronic mail should seriously consider buying a modem this speed.

Retrieving images from the Internet is very slow with anything less than 28,800 bps. Andrew Till of Dataquest predicts that demand for all modems will grow 57 per cent in Europe this year as compared with 1994, accounting for 4.3m units. The market leader is US Robotics, with other players including: SAT, Multi-Tech, Creatix, Paca, Dataflex, Hayes, Philips and Rascal.

**Fax from a PC**

"Ninety per cent of all modems sold into the home can be used for sending faxes as well as sending or receiving data," according to Till.

One of the most popular PC fax packages is WinFax software from US-based Delrina. This is available for Windows or Windows '95. The Windows '95 version is part of Commsuite 95, a package which includes voice messaging, electronic mail and paging.

By mid-1996, the company says it will be able to turn the user's PC into an answering machine, offer fax-on-demand services and be able flag up any new e-mail, fax or voice messages. The only snag is that you have to leave the PC on all the time.

**Voice-and-data modems**

Voice-and-data modems have yet to make much of an impact on the home market. These modems allow users whose phones are connected to digital exchanges, to use a single phone line to send/receive data and voice at the same time. For example, a user could phone Microsoft's helpline to ask about a software bug and

have the software fix sent down the same phone line to his/her PC.

There are two types of voice-and-data modem. Alternating voice and data (AVD), and Digital Simultaneous Voice and Data (DSVD). With AVD, data is sandwiched between gaps in the voice transmission.

This is not a perfect solution and modems providing AVD, such as those made by Radish, do not attract much of a premium (\$50 to \$60) over normal modems.

The latest technology is DSVD. This was first developed by AT&T with their TrueSpeech algorithm, and then by Rockwell with DigitalTalk. AT&T has a chip set that integrates TrueSpeech into Rockwell's rival chip set.

According to Till, "Rockwell currently has a 75 per cent share of the market for chip sets, but DSVD modems are still too expensive for most home users. A US Robotics Sportster 28,800 modem costs \$200 more if it has DSVD included."

Multi-Tech sells a DSVD modem based on AT&T chips, for a recommended retail price of £289. The modem provides fax, voice, answerphone, data communications and document conferencing, and comes with Windows-based software.

When running the software on a PC connected to the DSVD modem, a user automatically receives data, fax or voice calls on a single phone line. The software detects the type of incoming call and then launches the appropriate software. For voice calls, the software turns the PC into an answering machine.

"The more people who use DSVD," says Till, "the more applications will be developed for voice and data." He sug-

gests that it could be used for online shopping, "where the user sees the goods online but wants to place an order/ask further questions over the phone at the same time."

Until prices become cheaper, the main market for DSVD will be teleworkers (home-based workers) who need to stay in touch with a remote office by phone and computer.

## Integrated services

Till calls DSVD the "poor man's ISDN", because it provides some of the same benefits as Integrated Services Digital Network (ISDN) lines without a special line having to be installed. Installing an ISDN line costs £240, while line rental is £24 a quarter.

Data can be transmitted from a PC at high speeds down an ISDN line, and the line can be used for more than one thing at once. For example, the same line can handle voice and data communications, voice plus fax, data plus fax, and so on.

"Take up of ISDN in the home market has been slow except for teleworking applications," according to Dennis Bonnie, portfolio manager, BT Visual Solutions. At Zeneca Pharmaceuticals, BT's Presence ISDN videophones have helped sales managers working from home to co-ordinate the launch of a larger-than-usual number of products.

A new standard, T.120, for manipulating data on a PC while carrying on a videoconference, should boost home demand for ISDN, because it will make more equipment compatible.

ISDN could also have a role in connecting home users to the Internet, but not at current prices.



## Small office/home office

## Working from home

## US sets the pace in telecommuting

By next year, ten million workers in the US will be working from home

Another million Americans will begin teleworking - or telecommuting, as it is usually known in the US - in 1996. This is the prediction of the government-backed *Telecommute America!* campaign. These new telecommuters will join a growing army of 9m Americans who already work from home, using their computers and modems to make it possible.

The campaign was launched this year to promote awareness and understanding about working-from-home and local "satellite" offices. Among the campaign's members are the Association for Computer Transportation; AT&T, the telecommunications giant; also the US Department of Commerce; the Department of Transportation; the US Environmental Protection Agency; and the US General Services Administration, GSA.

Precise definitions of tele-

commuting, teleworking and home working vary, according to the amount of time worked at home each week and the types of equipment used. Thirteen per cent of the US workforce work at home occasionally, compared to only eight per cent in Europe, according to the latest figures from the European Information Technology Observatory, EITO, based in Frankfurt.

In the US, there are also higher expectations about working at home than there are in Europe, adds EITO. In the US, analysts predict that the number of people working in home-based offices will increase by more than three per cent a year, compared to only two per cent in Europe. Workers in the US have "a much higher acceptance of the need to be adaptable, to be multi-skilled, even having careers with several employers - often simultaneously", but in Europe, says EITO, "workers tend to look to governments to provide safety nets in times of rapid change".

Home office workers are defined by EITO as those who work at home for one to two five days a week, during normal working hours. They may

be self-employed or working for an employer. Teleworkers are similarly defined, but they also use equipment at home to support business data communications. On this definition, the US has 650,000 teleworking offices, compared to Europe's 410,000, estimates EITO, whose members include CeBIT, the information and communications technology trade fair in Hanover, plus leading suppliers in European ICT industry.

In the US, Robert Johnson, director of the General Services Administration, says that teleworking provides many "hard and soft" benefits to the government in terms of real estate costs, worker productivity and employee satisfaction. He cites the federal government's plans to establish telework centres throughout the US to enable employees to telecommute from "satellite" offices. Johnson reveals that more than 60,000 new federal workers will be encouraged to telecommute in the next three years, joining the thousands who already work this way.

"It is an important strategy to achieve a government that works better and costs less. It does this by reducing the costs for government agencies and

improving customer-service for taxpayers," he says. "Telecommuting also helps employees to better meet their family needs and to spend more time with their children."

In the US, the government is not the only supporter of telecommuting: high technology companies such as AT&T are enthusiastic about the idea. AT&T vice president Keith Springen says the company employs 47,000 telecommuters.

### 'Information technology enables many employees to work anywhere'

and "virtual office" workers - and was one of the first companies to enact a formal telecommuting policy. "Today's information technology enables many employees to work any time, anywhere," says Springen. "Employees report increased productivity, reduced stress and greater flexibility in balancing their work and personal lives."

Faith Wohl, director of the

Office of Workplace Initiatives in the GSA, comments: "Executives from business and government now depend on telecommuting as an important way to reduce costs and to maximise their return on investment in employees."

"Millions of Americans and thousands of employers are making telecommuting work - for employers, employees and society."

Campaign researchers say that two-thirds of the companies already have telecommuting plans, with 80 per cent of the other companies hoping to put such programmes in place within the next three years.

Executives involved in telecommuting programmes are almost unanimous (94 per cent) in agreeing that this mode of working brings benefits, citing cost-reduction, increased productivity and improved employee morale.

The study, conducted in the past month, also reports that two-thirds of companies surveyed among the *Fortune 1000* list now have telecommuting programmes, half of which were instituted in the past two years. The majority expect that management education "has proved very valuable in overcoming

"Private and public sector employers may initially have established their telecommuting programmes to meet environmental requirements or to help employees balance their work and family needs," adds Faith Wohl. "But in the process, they discovered its benefits to the bottom line". The growth of telecommuting suggests that business and government now depend on it as an important way to reduce costs and to maximise their return-on-investment in employees."

But despite the expansion of these programmes, barriers persist to more widespread adoption of telecommuting. Some businesses fear a lack of management control and a loss of the team concept. Staff also worry about adjusting to work at home, away from the daily interaction with other colleagues. However, two-thirds of the companies surveyed are attempting to address these issues through training and policy development.

Susan Sears, a founding committee member of *Telecommute America!* and president of the Telecommuting Advisory Council, says that management education "has proved very valuable in overcoming



In the US, telecommuting is far more popular than in Europe

supervisors' fears about telecommuting."

Through education, "managers learn to manage by results, instead of observation," she adds. "They learn to identify employees with skills and jobs that are well-suited to telecommuting. Telecommuting isn't for every person or every job. But while it is estimated that 40 per cent of today's workers could be telecommuting, only about 10 per cent are doing so."

"There must be many more employees who could perform their jobs as well - or even better - when given the opportunity to telecommute."

It appears that government supporters of telecommuting agree - "there are plenty of attitudes and myths, to telecommuting," says Faith Wohl, at the Office of Workplace Initiatives. "Our job with *Telecommute America!* is to educate employers on the kinds of jobs that lend themselves to telecommuting and on how to set up a programme for those employed in these positions so that employers, employees, families and society reap the benefits."



Teleworking in the UK: a homeworker, above, using a combination of digital dictation technology by VDI (UK), of Woodley, Berkshire is working for Britainia, the UK's sixth largest building society which has instigated an efficient teleworking facility. By utilising low-cost telephone lines, audio information from the society's Leek HQ is downloaded automatically each night to computers of home-based typists. Transcribing work is returned, via a modem, to the originating centre for printing

## Home telephony

## Buyers become more selective

A look at what's new in cordless phones, 'mobiles' and pagers

In today's evolving information society, the home office worker is spoiled for choice when it comes to telephony equipment. Deregulation and the move from analogue to digital technology also heralds a fast-growing range of competitive telecom services to benefit the home user.

In Europe and Japan, the markets for mobile phones, for example, will more than double by the end of the decade, while in the US the number of subscribers will increase from around 35m today to nearly

60m by the year 2000. By then, 350m mobile phones are likely to be in use worldwide.

Even the humble bleeper is finding a new lease of life, with big initiatives being made in both consumer and business sectors, spurred on by the new 'calling party pays' concept - see details below. But there was a time, in the UK, for instance, when buying a phone meant a visit to just one supplier: British Telecom. Now, BT's customer-base has fallen for the first time as users shop around for the best deal.

The new 'telephone-savvy' customer may have a cordless phone, a mobile, a pager or even a cable TV contract for telephony. The cordless phone, which

allows users to make and receive calls anywhere in the house, now looks like old technology. But there have been improvements. Phones, such as SouthWestern Bell's F900, offer eight channels for communication between the phone handset and the base station.

This means that if sound quality is poor when making or receiving calls - or there is interference from a neighbour's 'cordless' - the phone will switch to another of the eight frequencies.

The phone also comes with a second, smaller base station. This could be kept in an upstairs room, so if you are not carrying the handset when the phone rings, you do not have to rush downstairs.

The F900 costs £169.95 from Dixons, the UK high street retailer. Cordless phones with fewer channels cost less, and prices are falling. BT's Freestyle 80 with two channels is cheaper - at £79.99 - than its previous two-channel model. Another 'new' BT cordless phone, the Freestyle 1000, combines a cordless phone with a digital answering machine that records calls straight on to a chip. This has an intercom facility between base station and handset and costs £159.99.

## Japanese solution

In Japan, the Personal Handphone System (PHS) bridges the gap between cordless phone and mobile. PHS phones

are designed to be used mainly in the house, or in the neighbourhood as mobiles.

They do not require as dense an infrastructure of base stations as cellular networks used by frequent travellers. This lowers the cost of PHS and makes it ideal for the mass market. There are already three PHS services in Japan.

Bryan Van Dusen, senior analyst at the Yankee Group Europe, says PHS "has really taken off" so handset prices are low, too. PHS is a brand new technology and the Japanese are hoping to export it to densely-populated cities in

Continued on next page.  
Screen-based telephony: see next page.

Look at all the distributed computer systems.

Look at all the dedicated resources.

Look at all the people needed to manage them.

Look at all the duplication.

Does it look like it's getting out of control?

## Perhaps you should take a look at the System/390 Parallel Enterprise Server.

While it's easy to see all the benefits of distributed computing, it's hard to miss all the duplication that comes with it. Fortunately, the S/390 Parallel Enterprise Server can help keep things from getting out of hand.

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## Screen-based telephony

## PCs may soon answer the phone and take a message

Joia Shillingford looks at the new services for the smaller office, ranging from screen phones to desktop call centres

Until recently, using anything more complex than plain old telephone services was cumbersome for the home user. But a new generation of screen-based phones is making value-added phone services easier to use.

BT, Nortel, Ascom Telecom and Philips all sell telephones with screens which make it simpler to use new services like Caller Display, which flashes up the number of each incoming caller.

They also make it easier to use some of the slightly older ones such as 'Call Waiting', which tells you when someone is trying to get through if you are already on a call.

Users without special phones have to key-in barely memorable strings of numbers/symbols if they want to use these services. But a screen-based phone either comes with a menu of different phone services, or can be programmed to include one.

For example, BT's Relate 1000 (£89.99) displays the phone numbers of the last 20 callers as well as making it easier to use other BT services. It is also planning to bring out a new Caller Display phone which will give you the numbers of callers who are waiting to get through if you have the 'Call Waiting' facility.

Nortel's Excella 1000 for the residential market, stores up to 15 incoming callers' names and the company says that programming it to for enhanced phone services is straightforward. It is also working on a digital 'Caller Display' answering machine.

Philip's screen phone goes a step further and includes a pull-out keyboard. It is designed mainly for home banking or interactive shopping applications. Called the P100, the phone was originally designed for use by Citibank's home banking customers in the US. UK home banking customers of Citibank will soon be able to use the phone for a variety of tasks including bill payment, money transfers, getting an up-to-date balance and so on. Tesco's 24-hour home delivery wine service will be offered as well.

The wine service uses interactive voice technology, so users are given a list of options verbally. However, because the screen phone conforms to the ADSI (analogue display services interface) standard, the verbal information is also converted into text and displayed on the phone. This makes it easier to choose between a list of prompts (for example, 'press 1 for red wine, press 2 for

white wine, press 3 for champagne') because all are presented on the screen at the same time.

In addition, the phone has a smart card reader to provide extra security for home banking customers, and it can be programmed to work well with value-added services.

In the UK, BT and some of the other telecoms operators offer enhanced phone services. BT's are called Select Services. Some, such as 'Call Barring', and 'Call Diversion' are self-explanatory. 'Call Minder' is BT's network-based voice messaging/answering system. This records messages when you are out, not answering your phone, or on a call already.

## Value-added phone services

When launched next year it will cost £5 a quarter. If you subscribe to Call Minder, you cannot use Call Diversion, though BT hopes to overcome this technical constraint.

Other services include 'Call Return'. This is similar to 'Caller Display' but you just dial 1471 to get the number of the last person to call even if they didn't leave a message. As with 'Caller Display', there are some numbers which do not get recorded, such as those which have been withheld by typing 141 before the phone number. Mercury has a service which lets customers say which call-centre they want to charge a call to. This is useful for people who want home and business calls to be differentiated on their bills.

In the US, there are some other value-added (or Class) services including: 'Repeat Dialing', which keeps calling a busy number until the connection is made; 'Distinctive Ringing', which enables users to differentiate between business



Internet access: Rascal's new DAP 6300 terminal adapter for PC modem replacement provides Internet access and greater productivity for small office/home office (SOHO) users by exploiting the caller line identification (CLI) facility. Its battery back-up also allows PSTN lines to be replaced with ISDN links



A recent survey in the US shows that for many frustrated home PC-users, the most useful thing the PC could do is to answer the phone and take messages - a technical dream that is fast becoming a reality

and personal calls; and 'Selective Call Forwarding', which allows the subscriber to pre-select certain numbers to be forwarded to another number.

Some Select Services, such as 'Call Return' (which gives you the number of the last person who called) are free. Others cost up to £5 a quarter. But Craig Thomson, Class manager, BT Select Services, says: "BT is looking at offering more package prices, where users get a discount for subscribing to more than one service."

The Boston-based Yankee Group reports that in the US some telecoms operators are selling services on a per-use basis. This attracts infrequent users who may end up using the services more once they've tried them.

## PC-based call centres

For the user who wants to feel that he/she is at the helm of an advanced call centre - even when working from home, a number of products are available.

SDX Business Systems, a UK-based PBX (private branch exchange) maker, sells a special phone that plugs into the serial port of a PC as well as into the telephone network. Called 'Spot' (smart plain ordinary telephone), it enables users to control the phone from their PC screen. For example, home (or office) users with personal organiser software or a contact management database, can dial contacts straight from the PC. The phone works on standard

analogue phone lines and can be used hands-free with its internal speaker. The under-£200 PC phone also provides voice mail/answerphone facilities. Speech can be recorded on the PC's hard disk and replayed through the phone, with a little help from the Windows-based voice mail software sold with it. Inside the phone is a data and fax modem that works with most data communications and fax software.

Other products, which help turn a PC into a personal call centre include Creative Lab's Phone Blaster PC expansion card; an all-in-one phone management system, and Delrina's ComSolutions software.

For teleworkers, GPT Communications has launched a package of products and services that can link home users to their company network via ISDN (Integrated Services Digital Network). The package also allows home workers to display all messages (voice, fax, electronic mail) left for them at company HQ, on a single screen. According to Paul Fortescue, connectivity specialist at GPT, the first user is Smith-Kline Beecham, which has put an ISDN link in a West End suite used by staff who have just flown in from the US. There, they can check their messages without going directly to the office.

A survey of 200 customers by the US-based home PC company Packard Bell, reveals that the most important household job a PC could perform for them was to answer the telephone and take messages. That day is fast approaching.

## PC performance

## Home PC users learn new data storage techniques

Power-hungry software makes PC users far more demanding in their choice of storage system

Only a few years ago, home office workers relied entirely on a PC's tiny main memory, a low-capacity hard disk and a few 'floppies'. Now many PCs have very large main memories and high-capacity hard disks supported by a CD-Rom (Compact Disk Read Only Memory) drive. Soon many more of them will also have tape backup devices; and in a few years some will own rewritable disks.

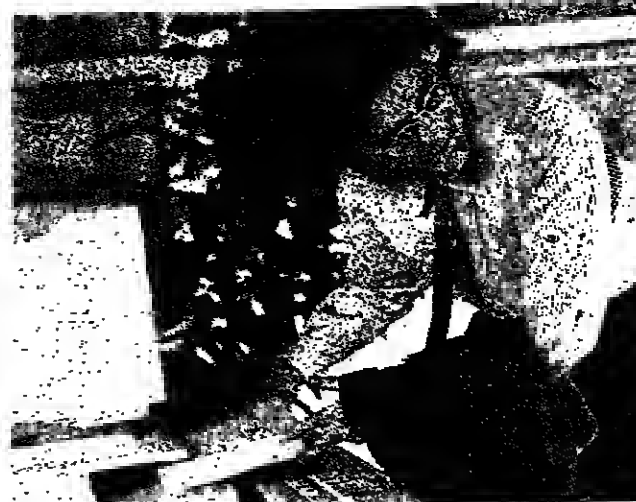
SOHO (Small Office/Home Office) users vary widely in their choice of storage systems, depending on their level of disposable income and whether they see themselves as entry-level users or 'power' users aiming to deploy complex multimedia applications.

The latter have begun to move from dual to 'quad'-speed CD-Roms and will shortly move on to six-speed devices to gain better performance from their PCs. Sharply falling prices for CD-Roms last year and this year have turned them into a standard PC component.

These disk drives may be brought into play for displaying graphical data, smooth contouring of images or inserting full-motion video clips into windows.

The six-speed CD-Rom option is considerably more expensive but may be attractive to the increasing number of home users who want to handle their applications in a more professional way. Users need to be ready to cope with a multiplication of the density of data on CDs, which is set to rise tenfold in the near future.

Some home users are ahead of office users in terms of data storage partly because the computer games which are popular in the home are far more storage-hungry than simple business applications, such as word-processing. Also, home



Expanding the system: the Desk Station IV provides Toshiba's A4 notebook range with all the connectivity and expansion options of a desktop computer

PC users have to be self-sufficient in memory, whereas office users increasingly tend to rely on remote servers to supply data when needed.

Most home users who upgrade from 286-chip or 386-chip PCs to 486s or Pentiums will experience an enormous increase in the size of both their main memory or RAM (random access memory) and their hard disks. Many will acquire eight megabytes of RAM, but even that may be too little in the near future. As Chris Herbert, senior PC analyst at the market research company Romtec points out, "this is sufficient for Windows 95 [Microsoft's new operating system], but it depends how hard you thrash it."

Microsoft claims that Windows 95 can be run on only 4MB, but many users may find they need 16MB, he warns. The appearance of 32-bit applications running on Windows 95 will increase the amount of storage capacity needed, perhaps dramatically.

They will generate much larger databases which will require correspondingly faster searching - "go as high as you can afford because eventually you'll find you need more than you thought," advises Herbert. Users are often replacing

60MB or 80MB hard disks which seemed more than enough, three years ago, with disks holding as much as 800MB. Compaq's Presario multimedia PC starts with 49MB, but there are now few machines that have anything less than 540MB.

According to Joe Jura, European storage analyst for the market research company Dataquest, by the middle of next year 1.2 gigabytes will be the entry-level for hard disks. For mid-range disks 2GB will be normal, while at the high end 4GB will start to become common for power users in the home office.

Home users include not only the growing number of self-employed but also those who take home work from their company's offices, often on notebook PCs. These people increasingly want the same technological facilities at home as they are used to at work.

Among the trends of the next couple of years is likely to be a growing take-up of tape drives in the home office. These will be widely used for backing up data, as more users become aware of the value of their data and the risk of losing it.

They will also use tape systems as a second level in a hierarchical storage management (HSM) system, copying what is now common practice in corporate computer systems. Most frequently-used data will continue to be kept on hard disk for fast access, while less-used data is relegated to tape. Adam Thew, European product manager for personal storage at Hewlett-Packard, says new software will soon enable PC users to save data straight to tape.

Prices for quarter-inch D5000 and 0.315-inch Travan industry-standard tape drives are falling fast; so devices which can take 400MB of uncompressed data are coming within the budgets of many home users.

The use of floppies which typically hold up to 1.4MB is more and more limited by the increasing size of the files which need to be kept, many of which are far bigger than a floppy can hold.

Joe Jura of Dataquest forecasts that tape will also be more widely used for archiving of data retrieved from the Internet. Rewritable compact disks are not yet an established technology and look unlikely to make much impact within the home user sector for the next three or four years.

Rewritable magneto-optical (MO) storage, combining magnetic storage with laser reading and writing, is not likely to appeal to the self-employed in the foreseeable future, according to John Goodyear, European marketing manager for manufacturer Fujitsu-Arcage. It is too expensive and has no application which is likely to compel them.

But for business people working partly from home, he says, a rewritable MO disk could become the best way of transporting large amounts of data between home and office. An MO disk, costing around £20, carries 23MB or about the equivalent of a three-drawer filing cabinet.

As files grow in size with the use of colour and complex images, portable MO disks could be a more cost-effective solution than transmission over data over the telephone lines via modem.

## Advances in fax systems

## Host of fresh applications

Buyers in the home office market are showing increasing discrimination in the selection of fax systems

Fax communication is alive and well and in no danger of being usurped by promises of freedom of communication across the international superhighway. Fax is tried and tested: is easy even for technophobes to access; and works to a worldwide standard and therefore suffers no compatibility problems.

That said, fax no longer means paper-fed machines only. Increasingly we are seeing PC-based fax supporting - though not necessarily replacing - hard copy fax. A case in point is the growth of fax broadcasting which is able to exploit both the unlimited database capabilities of a computer to target the 50m potential customers around the world who have access to a standard fax machine, be it a cheap thermal fax-phone or a high-capacity plain paper memory fax.

The downside of fax becoming a commodity item in every company and, increasingly, in every home, is that its use - and thereby cost - is in danger of slipping out of control because no-one at senior management level is taking responsibility for keeping up with new technology nor for user training, both of which could result in massive operational cost-savings.

According to the 1995 Pitney Bowes/Gallup fax-usage survey, the average annual telephone bill in large corporations is £21m; with fax communications accounting for 47 per cent of that - around £9.9m a year. With the typical fax machine population per organisation being 114 units, this means the average expenditure per unit is £87,000 per year; a figure that is forecast to rise 6 per cent in the coming year.

The high cost is not simply down to increasing volumes of fax traffic. It is partly because 79 per cent of companies still use relatively slow speed (9.6kbps) modem units, even though they have long accepted that faster 14.4kbps machines would cut costs significantly.

As suppliers such as Canon, Infotec and Ricoh will testify, those that make heavy use of fax for international corporate communications have to opt for ultra fast (1.5 seconds per fax) Group 4 machines. But that requires a digital (ISDN) link that few firms have invested in. Could it be that companies are planning to make a giant leap to 28.8kbps speed fax in 12-18 months when the standard has been approved by the International Telecommunications Union (ITU)?

Deborah Sauer, marketing vice-president of Fax at Pitney Bowes, contends it is UK attitudes to office equipment finance as much as a lack of knowledge about the technology and its true capabilities that is holding back progress - "if more customers leased their fax equipment, rather than purchased it outright, they would not need to wait for the 28.8kbps fax standard to be ratified; they could upgrade now to 14.4 and to 28.8 when it arrives. Their costs savings would be dramatic; potentially far more than the cost of the lease."

They could also cut costs by making use of fax features that are now considered standard on most plain paper fax machines such as abbreviated dialling, memory transmission and broadcasting. A fax-usage survey carried out by the British Facsimile Industry Consultative Committee clearly shows both a lack of training and a lack of knowledge about new technology and how it can be used.

The survey found that of the 70 per cent of companies that have machines with memory transmission, only 41 per cent use it frequently; of the 22 per cent who have access to broadcasting, only 25 per cent do so regularly; and of the 66 per cent could use delayed transmission in exploit cheap rates, only 25 per cent do so on a frequent basis. Finally, of the 44 per cent who have purchased machines

with a polling facility, only 10 per cent actually make use of it. It could be said, of course, that accessing such facilities is not as easy as the manufacturers would pretend. Many of the manuals and display panels certainly leave much to be desired if you want to use the more sophisticated features.

This is an area where the PC-connecting facility can be particularly useful if, as with printers, bi-directional interfaces are added with good user-friendly control software.

A number of plain paper fax machines offering PC-connectivity have been introduced over the past year or two by suppliers such as Brother, Canon, Infotec, Minolta, Muratec, Oki and Pitney Bowes.

However, it requires control software to turn simple connectivity into a workable solution. Many machine suppliers - Canon, Minolta, Muratec, NEC, Oki, Panasonic, Pitney Bowes, Ricoh, Sharp and Toshiba among them - decided that starting with an off-the-shelf software package would be quicker and cheaper than developing their own solution; hence the almost universal adoption of WinFax LAN/fax software.

One of the more advanced fax packages on the market, it includes OCR (optical character recognition) that turns a fax image into an editable computer file and supports all the latest international ITU fax standards (i.e. sub-addressing, selective polling and data file transfer, via fax).

But brand differentiation is important in an increasingly competitive market. Among the first to address this was Toshiba which has recently launched an enhanced version of its Windows-compatible ImageVision software for work groups to the corporate sector and the increasingly discriminating teleworking market.

An added benefit is multi-tasking which allows users to continue working on the PC during fax (hard copy transmissions and send/receive paperless fax) with access via the PC to all telephone numbers stored in the fax machine as well as on the computer's hard disk.

The next stage towards the true multi-functionality that potential users will be seeking is a bi-directional PC-to-fax interface, so that the fax can be programmed from the PC

and information about activities generated from either source can be integrated. Another important ingredient is a combined facility for sending/receiving binary files as well as fax messages without having to fit a second modem. This is now possible on the new Konica 9715P, a fully featured plain paper fax, with auto-dialling of six pages per minute speed, that can print, scan, copy and send/receive computer files (including word processed, database and spreadsheet formats). It can even send faxes with embedded objects so that, for example, you could send a Microsoft Word document with an embedded video or sound file. It is priced at under £2,000, with network version due this month.

Developments, then, are continuing apace in all areas of fax including fax on the LAN (local area network).

BIS Strategic Decisions forecasts that the European fax machine market will grow from 2.2m units per year in 1994 to 2.8m by 1998; fax modems from 1.5m per year to over 4.5m by 1998; and LAN fax servers (each, typically, supporting up to 50 users) from 35,000 to 100,000 systems.

As a result, we can expect to see a host of new applications such as remote LAN-fax access as well as new services such as fax broadcasting and fax-on-demand to satisfy the seemingly insatiable demand for time-critical information.

Indeed, BIS research shows that the revenues generated in the European fax services market rose 53 per cent to \$22m during 1994, with the UK's market share the largest at \$32.4m.

The fact that hundreds of customers worldwide can be contacted via their fax machines to a matter of minutes, at less than 25 per cent of the cost of standard mailing, is not lost on Graphic Line Machinery, a company which acts for international dealers and print companies selling second-hand equipment. Once upon a time it took the company ten hours a week to send information on the stock situation. Now, thanks to international fax standards, they can use the Comwave fax broadcasting service to notify potential customers around the globe - all in a matter of minutes.

## Wider choice of mobile services

Continued from previous page: south-east Asia.

In the UK, there has been much talk of providing access to non-37 phone networks via cordless phones in the home. This is known as wireless local loop bypass, because it effectively bypasses BT's local network.

Base stations, probably conforming to the Dect (Digital European Cordless Telephony) standard, would be sited in local areas. They could then be used to make calls from around the house or garden or in the street.

Cambridge-based Ionica plans to equip users in its area, with cordless handsets enabling them to connect directly into long-distance networks. The bypass service will be based not on Dect but on Ionica's own technology. Problems with the technology have delayed the introduction of the service, but it will be launched on March 26 next year.

## Licences

The UK government is also inviting applications for six local-loop licences by December 11, with some aimed at providing voice telephony to rural areas.

However, it is not clear whether local loop bypass will succeed. Van Dussen says "wireless local loop is a proven concept for giving telephony to

remote areas - for example, in parts of Spain," but it is not proven as a bypass technology.

For those in the UK who want a truly mobile service, there are four operators (Cellnet, Vodafone, One2One and Orange) and six services to choose from.

Cheapest for the home user are One2One and Orange, both based on Personal Communications Network (PCN) digital technology - "One2One is about a year behind Orange in terms of national coverage," according to Van Dussen. But neither offer the same level of coverage as Cellnet or Vodafone.

One2One was originally geared towards the home user in London and the M25 area, with free local calls in the evenings and at weekends. These have now been abandoned (except for existing users, and at weekends), partly because of their cost, and partly because they were attracting the wrong sort of customer - for example, drug dealers and bad payers.

The company, owned by telephone carriers Mercury and US West, is now shifting its strategy more towards small businesses, though its prices will be still be attractive for home users.

Hutchison's Orange service is doing well and the Financial Times Newsletter Mobile Communications predicts that it will have more subscribers than One2One by early next

year despite entering the market later.

The company is currently running a series of adverts, claiming that business users of Vodafone or Cellnet would save £20 a month by transferring to Orange. However, as Neil McCartney of Mobile Communications points out, this is slightly misleading because it is based on Orange users' pattern of use, and they may have adapted their behaviour to the Orange tariff structure.

Orange counters by saying their users' behaviour is similar to that of Vodafone and Cellnet subscribers.

## Options

Vodafone and Cellnet customers can choose between their digital services based on GSM (Global System for Mobile) and analogue services. Digital services are better protected from electronic eavesdropping than analogue services. And GSM handsets can be used in most European countries and a growing number of others (though not the US).

The drawback with GSM for the home user is the high cost of the handsets and the business-oriented cost of the service. Some home users only want mobiles to case of emergency and Vodafone and Cellnet both offer emergency packages on their analogue services. There are also home

tariffs for GSM, which give lower-priced calls in the user's local area.

Analogue services will be around for some time, but the more advanced GSM and PCN services have been widely successful. Countries such as Germany already have more digital than analogue mobile users and in the UK, digital mobile will supersede analogue by 1999/2000, according to the Yankee Group.

Whatever type of mobile you choose, battery life is still a problem. One way round this is to use a mobile in conjunction with a pager - or just use a pager.

BT and Mercury both sell Calling Party Pays (CPP) services aimed at the home market. Users pay a one-off charge for the paging device and callers pay a premium to call them. BT sells Swatch the Beep, a trendy wristwatch pager with a numeric display.

Mercury has just launched Mercury MessageCall, a tone pager linked to a voice mail box. Callers pay 39 pence a minute to leave a message in the voice mailbox and the user is then paged. The service costs a one-off £49.99.

In the film *Clueless*, designer-clad teenager Cher calls her friends up on a mobile when they page her. But there is one thing today's home user isn't - and that's clueless about telephony.

صلى الله عليه وسلم



IT festive goodies

By Louise Kehoe in California

# 'Tis the season to go shopping

... and the chances are high that you will find a home computer user on your list this Christmas

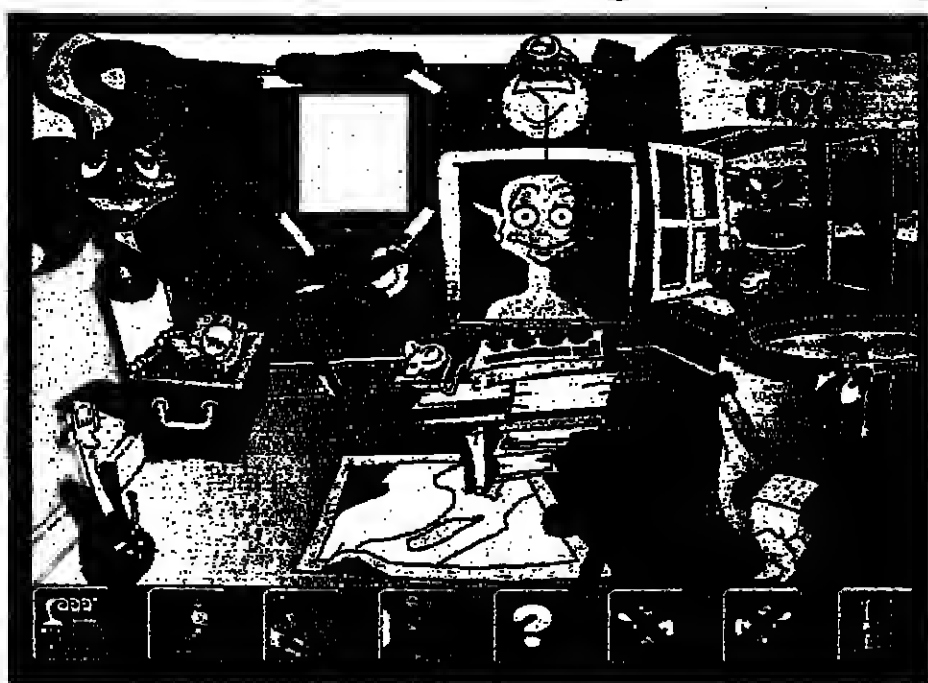
Shifting from office to home use, the personal computer has become a staple consumer electronics product, installed in more than a third of households in the US and UK.

Finding the right gift for the PC user can, however, be a bewildering experience. Most home PC purchasers say that they are buying a new PC to ensure that children have access to the latest technology, or because they plan to work at home.

This might lead benevolent relatives and friends to the computer store isles of educational and "personal productivity" software in search of the perfect Christmas gift.

In the education category, top sellers include Mavis Beacon Teaches Typing, from Mindscape, addressing the most basic educational needs of any PC-user. For children, the latest Math Blaster program from Davidson is a sure fire success. Using the ruse of games that blast rocket ships and search for lost dogs, the Math Blaster series makes arithmetic drills seem like fun.

Another favourite group of "educational" programs is the



In the US, more than 90 per cent of children under the age of 12 use PCs, at least part of the time, to play games. Pictured here is a scene from *SimCity*, by Maxis. This "educational" game is described as a "teacher and friend" for four to 15-year-olds.

"Sim" series which includes *SimCity*, *SimTown*, *SimLife* and others, from Maxis. *SimCity*, the classic, appoints the user as the developer and all-powerful ruler of a new city where he or she can build residential, industrial and public facilities. The player must balance the interests of existing residents against the potential for new development and cope

with unexpected disasters such as earthquakes or floods.

It has often been suggested that *SimCity* should be included in "basic training" for prospective city administrators and politicians. In the meantime, it provides the rest of us with a glimpse of the complexities of city government.

In the personal productivity segment, *Quicken*, from Intuit,

is a "must have" program for the head of any household. It enables the user to organise personal finances, pay bills electronically, keep track of loan payments and analyse spending. The latest version of *Quicken* also provides links to accounts at several banks, enabling customers to update activity in their accounts online. *Intuit* is also expanding its personal finance program portfolio to include advice on issues such as retirement planning, insurance and college finance.

For families, *Print Shop Deluxe* is another favourite. With a colour printer, users can quickly produce greetings

cards, invitations, banners, certificates, business cards and many other types of documents using built-in graphics.

A new category of software that is proving increasingly popular is maps. Top sellers in the US include *Street Atlas USA* from DeLorme Mapping and *Antomap Road Atlas* from Microsoft.

Another software fad among home computer users is the "family tree" program. Grandparents may find a mutual interest with their offspring in putting together a family genealogy using, for example, *Family Tree Maker Deluxe* from Banner Blue Software.

Yet for all of the high-minded talk among PC-buyers about education and work, the top-selling PC applications are games.

A recent survey of US home computer users conducted by Packard Bell, a leading US PC manufacturer, found that 56 per cent of users said they want more games and 35 per cent said they want more entertainment software.

More than 90 per cent of children under the age of 12 use PCs, at least part of the time, to play games. The numbers of PC game players decline somewhat with the rising ages of users, but more than two thirds of adult male PC users acknowledged using their computers to play games and more than half of retirees who own home computers also cited games as one of their uses of the machines.

A new generation of PC games is available this Christmas that is designed to take full advantage of enhanced multimedia features of the latest PC models and the "plug and play" capabilities of Microsoft's new Windows 95 PC



Top seller: *Phantasmagoria* - a chilling new thriller from Sierra On-Line - the world's first computer game to feature a censorship "gore button". This option allows adult players to censor out most of the gruesome scenes, so that it is more suited to play by the under-18s. *Phantasmagoria* is one of a new generation of interactive movies that are more like films than conventional computer games.

operating system.

A sure fire winner is *MechWarrior 2*, from Activision. A new version of the top selling combat-simulation game featuring three-dimensional graphics and enabling multiple players to compete simultaneously has been launched for use with Windows 95. Activision is also offering *Windows 95* users a touch of nostalgia with collections of the "golden oldies" from the era of Commodore 64 PCs and Atari 2600 videogame machines.

*Myst*, a PC mystery that defies the logic of anybody over the age of 16, is not so much a game as a cult. The *Broderbund Software* program has been one of the biggest PC games for the past year.

*Phantasmagoria*, from Sierra On-Line is, without doubt, however, the hit of the moment.

Launched in late August in the US, the program grossed \$12m in the first week of release, selling 300,000 copies.

A "nightmare fantasy", the game, contained on seven CDs, includes over 1,000 3-D backgrounds, more than two hours of full-motion video and a cast of eleven characters.

Players assume the role of Adrienne, who, with her husband, Don, has moved into a haunted mansion. Players must unravel the mystery surrounding the house and combat the evil forces that hold her husband in its icy grip.

While games like *Phantasmagoria* are suited only to those old enough to spell the title, some PC users may reject game playing as kids' stuff. The PC activity for all ages is the Internet, the global network of computers where mil-

lions of PC users are tapping to send electronic mail, find news and explore the vast resources of the World Wide Web.

To equip a PC for cyber surfing, start with a high-speed modem 14.4 kilobauds is standard, but 28.8 kilobauds is preferable. Software to access the Internet is widely available at little or no charge from online services including CompuServe, America Online and the Microsoft Network.

A year-long subscription to one of these services, or to a local Internet access provider, will keep most PC users busy for many days to come. Costs for basic services range from about \$10 a month but may rise to \$40 a month, depending on usage. While it is not cheap, introducing a PC user to the Internet may be the gift of a lifetime.

Game consoles

By Tom Foremski in California

## Stakes are raised in the video game market

The convergence of technologies in the home indicates that video games systems may evolve into set-top TV boxes that will also control interactive TV services

A new generation of video games consoles is emerging that offer impressive 3-D graphics capabilities and promise to usher in a host of enticing games - but the number of different and incompatible platforms is likely to confuse buyers.

The new consoles feature powerful 32-bit and 64-bit microprocessors and custom chips specially designed for 3-D graphics game-playing. Peek inside a system like the recently introduced Sony PlayStation and you discover technology that is more commonly found in high-end, expensive graphical workstations.

The new wave of games consoles is being led by 3D0-based systems such as those manufactured by Panasonic, Atari Jaguar, Sega Saturn, Sony PlayStation and the soon to be announced Nintendo Ultra-64 video game system. While 3D0, Sega and Sony hope to capture new buyers this Christmas, "the real market battle will be next year, when Nintendo launches its new system," says David Cole, president of US market research firm, DFC Intelligence.

Unlike in the 16-bit games system market where Nintendo and Sega dominate, the new generation of games systems will not have any clear leaders for a while - "this will confuse buyers who are likely to wait until next year to decide which system is best and has the best games," Cole predicts.

### Robust systems

The new games consoles signal a trend away from cartridge-based systems in which the game software is stored on chips, toward CD-Rom-based systems, using CD disks. The disks are cheaper to manufacture and can store larger amounts of data. But cartridges offer faster access to that data and are more robust - an important consideration with children. Nintendo, however, says that it will continue to use cartridges for its Ultra-64 system: a choice it might regret.

"CDs are easier and cheaper to manufacture which means that game prices can be cheaper," says Cole. "Sega Saturn games, for example, can be found for about \$30. You can't

manufacture a video game cartridge for that much, let alone produce the games software." But Nintendo is confident that it can capitalise on the popularity of its earlier generation of games consoles. The company recently announced it has sold its one billionth game - enough to supply one to every teenager on the planet.

Despite the technology claims made by the manufacturers for their games consoles, it is the games themselves that decide which systems will succeed. A hot game can quickly boost sales. And with mostly young males playing video games, fighting games, such as *Virtua Fighter* for Sega Saturn and *Battle Arena Toshinden* for Sony PlayStation, are where the real competition for buyers takes place.

CD-Rom-based games also offer developers greater flexibility in terms of the sophistication of the games they produce. Leading video games developer Electronic Arts, for example, is working on a title that mixes video segments using live actors into the game. "We just finished shooting scenes for the game 'The Darkening' at Pinewood Studios using well-known US and British actors," says David Gardner, managing director of Electronic Arts Europe. "People are increasingly rejecting computer-generated generic characters. They'd rather see a Sylvester Stallone, somebody real."

But sophisticated titles such as *The Darkening*, increase production costs. Gardner said that shooting the video scenes for the game cost several million dollars. Add to that the cost of programming and the promotion budget and total costs become comparable to that of a Hollywood movie with similar risks of success.

While the new games systems offer increased levels of realism, they come at a price that few children can afford. Systems such as the Sony PlayStation and the Sega Saturn, for example, cost \$300 in the US and that is without any games. Each game title can cost between \$30 and \$70, again, beyond the reach of most pocket money budgets.

Fortunately for the industry, they are able to reap the seeds

sown in the past - "Sony's target market for the PlayStation is males aged between 18 and 35. There are millions of people who grew up playing video games and they continue to do so as they get older," says Cole.

As more homes buy PCs, the PC platform is also changing into a video game platform. While PCs are five to ten times more expensive than video games consoles, they offer more versatility. Companies such as Creative Technology are developing products that improve the graphics on PCs to make them comparable with those found in dedicated games systems. Creative's 3-D Blaster fits inside a PC and accelerates the systems graphics and adds 3-D shapes. 3D0 is also developing add-on boards for PCs.

### Developments

Software giant Microsoft is well aware of the trend and has developed its DirectX technology which allows programmers to develop fast-paced, graphics-intensive games for PCs. However, PCs will lag behind the capabilities of video games consoles - "when you're writing games for a platform, such as the Sony PlayStation, you can take advantage of the custom chips and you write directly to the processor. You don't really have an operating system like Windows that gets in the way and slows things down," explains Tim Glasser, a programmer for San Francisco-based video game developer, 47 Tek.

The trend is for video games consoles to evolve into multi-function devices. Already, the CD-Rom based systems can play audio CDs. This will extend to playing CD-based digital movies and assuming more communications capabilities. Sega, for example, has discussed plans to build an "Internet Saturn" in which players will be able to use Internet connections to download games and play against each other.

The convergence of technologies in the home points to video games systems further evolving into set-top TV boxes that will also control interactive TV services. In this way, the stakes for surviving in the video games market are raised, since the winners will be able to move their installed base into new markets and increase revenues from a range of additional services.

Interactive TV put to the test: see page 10

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- An A to Z of the Internet
- The Semiconductor Industry

For details of the main themes to be covered in the regular monthly Reviews from February to December, see details on Page 16 of this current issue.

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## ■ Electronic commerce

# Internet brings global network to the home-office

'On the Internet, nobody knows you're a dog,' as a 'New Yorker' magazine cartoonist once quipped

With the Internet, no one need know that the 'world headquarters' of a fledgling enterprise is located in the spare bedroom of a suburban semi-detached house, where a would-be entrepreneur has set up his home-office.

For the growing ranks of people who work at home - 'telecommuters' employed by large companies as well as those attempting to get new businesses off the ground at minimal cost - the Internet has become an invaluable business tool for marketing, market research, and communications.

With a 'home page' on the World Wide Web, small businesses can display their wares to millions of potential customers for less than the cost of a single page advertisement in most magazines.

Via the Internet, individuals and small businesses can also gain access to vast amounts of information, from details of competitors' products to free advice on international trade, how to get small business loans or how to write a business plan.

Electronic mail, a staple of the Internet, has become a lifeline for the home-office worker, enabling him or her to communicate inexpensively with colleagues, customers and suppliers around the world or across

town. Another, less widely recognised advantage of the Internet that is particularly useful to individuals who work at home, is the ability to participate in special interest online discussion groups, sharing experiences and seeking help from fellow 'telecommuters' - or teleworkers, as they are known in the UK: see report, page five.

That first leap into cyberspace is, however, a significant challenge for the home-office worker. Without the support of a corporate systems help desk, or even colleagues who are on top of the technology, the prospect of getting online can be daunting.

For the computer novice, the best place to start may be one of the commercial on-line services such as Compuserve, the Microsoft Network, Prodigy or America Online. These services provide a structured approach to online information, easy to use graphical interfaces and online help for those who need assistance.

While most such services are geared to consumers, rather than business users, they provide access to databases packed with business information.

One example is the Dun & Bradstreet business directory available via Prodigy (JUMP: D&B). The database is a directory of more than seven million US businesses including public and privately held companies.

The menu driven service can be used to track down a single company or to obtain, for example, the names and addresses of all the florists in Cincinnati with annual sales of over \$100,000. Another popular online business database is

Hoover's Business Resources which contains information about 1,500 US companies. Less comprehensive files are available for about 6,200 more businesses. Hoover is available on America Online (keyword 'Hoover') and Compuserve (go Hoover).

Since most on-line services offer free trial periods of a month, new users can explore them before becoming a subscriber. Costs then vary according to how much time is spent online, but begin at about \$10 a month.

A subscription will put you on the cybermap with an electronic mail address. The leading online services now also provide "gateways" to the global Internet.

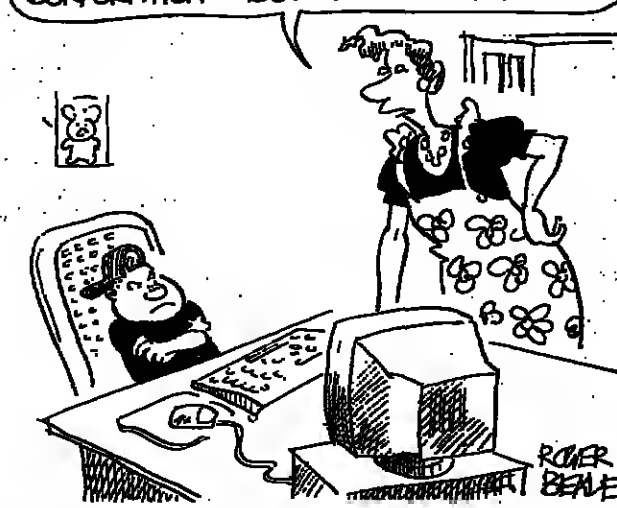
Serious on-line users will probably, however, want to establish a direct-dial Internet account with one of the hundreds of local Internet access providers that have sprung up over the past few years.

When choosing an Internet access provider, several factors should be considered. The price of the service is obviously important, but the availability of a local telephone number to 'log on' to the service may be more significant in determining the overall costs. Quality of service and support also become critical as the home-based worker comes to rely upon the Internet.

Software is another important issue. Some Internet access services provide their own 'browser' software, while others support popular packages such as the Netscape Navigator.

It should not take long for the home-based worker to

YOU MAY BE CHAIRMAN AND MANAGING DIRECTOR OF INTERCALACTIC COMMUNICATIONS CORPORATION - BUT IT'S STILL BATH TIME



recognise the potential of the Internet. Those starting up their own businesses might first, for example, pay a visit to the US Small Business Administration's site on the World Wide Web (<http://www.sba.gov>). While the information at this site is geared to US residents, much applies to businesses anywhere.

Other comprehensive sources of information and advice for people starting out in business on their own can be found at the 'Virtual Home Office' of Soho America (<http://www.soba.org>) and at the home page of the Home Office Association of America (<http://www.hoaa.com>) which claims that 43m people in the US are now working at least some of the time in home-based offices.

Over the past two years, thousands of companies have established "home pages" on the Internet. To access these pages, you need to know the Internet address or "Universal Resource Code" (URL). While there is no central directory of the Internet, "search" systems and indexes can be a big help.

Examples include Webcrawler (<http://www.webcrawler.com>), Yahoo (<http://www.yahoo.com>) and McKinley (<http://mckinley.netcom.com>). Simply by typing in a few "key words", users of these services

are presented with a list of links to Internet sites that address the topic of interest. "Usenet" is the next application of the Internet to explore. There are thousands of special interest discussion groups, called "newsgroups" on the Internet. Finding your fellow carpet importers or freelance writers will also, however, require some searching.

Electronic mail is still, however, the most widely used application of the Internet. For home-office workers it presents the opportunity to communicate inexpensively over long distances. Telecommuters are using e-mail to keep in touch with colleagues and even to follow office policies.

Setting up your own "home page" on the World Wide Web is the next challenge - see the report, below. There are numerous companies and organisations ready to help, with services that range from designing graphics for a WWW site to establishing and managing the site. While getting on the 'Net' can be a frustrating and time-consuming experience it is an opportunity that few businesses can afford to ignore. For home-office workers it is quickly becoming an essential tool for communications, marketing and market research.

By Tom Foremski in California

## ■ Using the Internet

## How to create your own web page

Most Internet providers and on-line services now offer users space for their personal web pages

Creating your own web page is surprisingly easy to do if you are content with a simple design and judicious in your use of graphics - and there are plenty of shareware programs and emerging commercial programs that can help.

Personal web pages are a rapidly growing part of the Internet and individuals are setting up web pages at a much higher rate than businesses - "personal web pages" are another form of content and we will encourage our users to create web pages," says Robert Massey, chief executive of Compuserve.

Web pages are created according to the Hypertext Markup Language (HTML) protocol which is a series of codes that determine the heading, body text and the position of graphic elements such as photographs. Once a page is marked up with HTML commands any web browser such as Netscape Navigator can display the page.

While there are many shareware applications that help the process, web pages can be created using any text editor or word processor. You start with the plain text, with no formatting. You place the following HTML code at the top of the page: <html> followed on the next line by <title> inserting the title of the document followed by <body>. Then on the next line <body> followed by

the body of the text. Headings are set by placing the code <h1> just before the text for the heading followed immediately by </h1> which specifies the end of the heading.

The paragraphs in the main text are designated by the code <p> after each sentence that you want at the end of the paragraph. At the end of the page place </body> followed on the next line by </html>. Then save the document as a plain text ASCII file and there you have it, a simple web page that can be uploaded to your Internet or online service provider where it can gain the attention of millions of Internet users.

To preview your handiwork, use a web browser to open the page locally on your PC. Obviously, few people will be happy with a plain-looking web page, especially since there are many options such as background colour and graphics, photos and other graphic elements that can be added to improve the look of the page. But it shows that creating web pages need not be a daunting task.

### Opportunities

If you find a web page you like, for example, you can save that page as a source file then you can open it with a text editor or word processor.

This will let you examine all the HTML codes used and see how the page has been put together and how the author created any special effects.

You could then copy and paste the HTML codes from a variety of web pages into your own page, changing the body text and headings of course, and end up with a magnificent

looking page.

There is also plenty of help available on the Internet. For example, using your web browser point it to <http://www.excite.com> which is the location of the Excite Internet search service from Archtix Software. Type in "creating a web page" and excite will direct you to dozens of Internet based resources that direct you



Making an impact: page creators can now use stunning 3-D graphics with Silicon Graphics' WebSpace Author system

further to shareware programs and commercial programs that will help you create outstanding web pages.

There is an abundance of shareware programs. Windows users can download programs such as HTML Assistant, HTML Writer and HTMLed. Microsoft offers Microsoft's Internet Assistant and Microsoft Word for Windows Macros that help convert existing formatted documents into web page ready versions. Macintosh

users can turn to shareware programs such as WebWeaver, HTML Editor and AutoWeb. And before too long there will be plenty of commercial web page authoring tools from a host of companies. Netscape, for example, says it will offer web page creation tools in future versions of its Navigator product. There are already several commercial programs

that can be used to add real-time data, animation and high-quality audio to web pages. This is probably overkill for a personal web page but it shows that normally static web pages are quickly evolving into dynamic, multimedia presentations.

But why would you want your own web page? For some people it's simply a way of becoming part of the Internet phenomena; for others, it becomes an adjunct to a business card, allowing people to find out more about you. Many people, especially recent university graduates, include a copy of their curriculum vitae among their personal web pages, in case someone wants to offer them a job.

### Staying in touch

Personal web pages are also becoming more common within companies. The consulting firm Arthur Andersen encourages its clients to use personal web pages as a way of capturing and retaining information within the company that might be useful to colleagues at another part of the company.

Staff can include white papers on specific topics and detail how a project was handled - all valuable information that can save others from repeating mistakes or reinventing the wheel.

Semiconductor manufacturer Intel, in another example, uses personal web pages to distribute information. A manager would place his progress report on his personal web pages and then distribute the location of that report to staff. They would then view the report directly from the manager's web pages.

## ■ Multimedia

## Seasonal excuse to jump into the digital future

The purchase of a multimedia PC system is a good starting point. Eventually, the PC will replace the television, the video cassette recorder and the hi-fi system

Christmas is always a good excuse to buy some technology for the home. Sales of televisions, video cassette recorders and hi-fi systems invariably peak in the weeks before Christmas. This year the big seller looks likely to be personal computers (PCs) and associated accessories.

The new wave of multimedia PCs has much to offer home users - both to gain access to new information services via the Internet and to provide a new focus for education and entertainment. Indeed, it seems likely that the home PC will eventually render most other 'electronic devices' redundant.

The trend towards 'digital' information for all media is well under way. Digital audio is well established with Compact Disc (CD), telephone services are fast moving towards digital forms and recent developments in CD technology promise to hasten an age of digital video, see details below.

Although the current generation of multimedia PCs is unlikely to replace the TV, the telephone and the hi-fi, they point in the right direction. The next generation - based on faster chips and higher quality graphics processing - will, however, and 1996 will see the first wave of these multipurpose digital devices start to emerge.

Meanwhile, there is a wide range of accessories and software now available that give some indication of what the

future has in store. Christmas 1995 is an excellent excuse for jumping into the digital future. The multimedia PC is a good starting point. Typically, this will be an Intel Pentium-based PC and will come with a CD-ROM drive, a sound card and speakers.

Suppliers are offering low-cost products to these specifications for home users. Time Computer Systems, one of the biggest UK suppliers, offers a basic multimedia PC for \$899. Gateway 2000 offers a similar product for \$1,099.

For those who already have a standard PC, low-cost multimedia upgrade kits are advertised in the specialist magazines from \$200. Another option is to turn your PC into a multi-function telephone system. Creative Labs, for example, offers a product called Phone Blaster for \$249. The package provides a voice mail, answering machine and fax functions through a high-speed modem and a sound card.

### Improvements

As the company points out, the cost of buying the individual devices to achieve the same functions would cost nearly \$600. Even if you do not want to turn your PC into a telephone system, there are other ways to improve your use of telephone system. TDS, a UK software supplier, has released a complete directory of UK business telephone and fax numbers.

The directory - called Tele-

power Pro comes on a CD-ROM and costs \$40. If you visit London regularly, Instant Access's Street Finder is an inexpensive version of the A to Z guide. For \$15.99, Street Finder covers all of central London and includes references to 200 places of interest and a comprehensive guide to London's restaurants.

Instant Access has also signed up discount deals with many of the restaurants included in the guide.

While the main marketing thrust for multimedia software has so far concentrated on games, a wide range of more serious titles is also coming to market. The importance of the multimedia consumer software market is confirmed by moves from large companies like IBM and Walt Disney. IBM launched a range of CD-ROM titles for the PC in the \$40 price range in time for Christmas.

In addition to the usual games, American football, War Games and so on - the range includes educational titles. The Adventures of Hyperman, for example, is an animated cartoon adventure game which comes in the form of a puzzle. This must be solved by referring to various scientific data hidden in the program - such as how to fly a balloon and defuse a bomb.

Peter and the Wolf, another IBM CD-ROM title, introduces Prokofiev's famous music and classical music in general by using cartoons and audio. Children can explore the instruments of the symphony orchestra by navigating through a colourful graphical interface.

Walt Disney's CD-Roms, priced at \$44.99, use famous

Continued on facing page

## ■ Offensive material on the Internet

By Geoffrey Wheelwright

## Ways to protect children from 'Net pornography

US parents can apply products such as 'Net Nanny' to block inappropriate material

Reports about the proliferation of pornography, hate mail and violent words and pictures on the darker side of the worldwide Internet computer network have fuelled a growing demand for tools to help parents control what their children see and hear on the Internet's World Wide Web service.

Providing that they know where to look, it is not hard for anyone - even a computer-literate child - to gain access to explicit, pornographic pictures and videos in high-definition images, with anonymous but obscene text catering to fetishists of many types.

Recent research in the UK suggests that almost half the popular searches for information on the Net are for pornography.

Especially worrying are reports that children have been contacted via bizarre on-line chat groups. But these seemingly 'friendly' typed conversations are originated by paedophile rings and other perverses who seek an on-line relationship with children, hoping eventually to lure them to a meeting outside the home.

Earlier this year, the US Federal Bureau of Investigation concluded a two-year inquiry that led to a dozen arrests and searches in more than 120 homes. The resulting charges related to the misuse of a popular on-line information

service by a small group of individuals seeking to distribute child pornography and arrange sex with children.

In the US, a surprising statistic suggests that children now spend more time using their home PCs than watching TV. Now, IT companies are seeking ways to help parents protect their children from electronic porn.

Microsoft, the software giant, and Netscape Communications, the leading Internet browser software producer, have joined forces to found the 'Information Highway Parental Empowerment Group' in the US to develop technological solutions to this problem. The US Senate is also considering legislation aimed at the same issue.

In California, an enterprising wife-and-husband team has launched a software package called SurfWatch, which keeps track of several hundred inappropriate news groups and allows parents or teachers to restrict Internet access.

Trigger words

Meanwhile, in Canada, Trove Investment Corporation, based in North Vancouver, has a product to help parents supervise the way their children use the Net. Known as 'Net Nanny', it is a \$49 software package for the Microsoft Windows or DOS environments that monitors the content of any World Wide Web page before it appears on a computer screen and prevents it from being displayed if the content is deemed inappropriate. If certain words are typed on the PC keyboard, or registered as being received during a data 'conversation', a 'hit' is registered and Net

Nanny will lock up the keyboard and close the system down. Only by using the Net Nanny administration program can the keyboard be restarted by parents (who ever holds the passwords for the admin software).

The 'trigger words' or phrases used to block a page are selected entirely at the discretion of parents. In addition, the product can be set up to stop the transmission of personal details - such as name, address, phone number or credit card details - so that children cannot inadvertently give out sensitive personal information over the Internet.

According to Graham Heal, manager of business development at Net Nanny, a main advantage of the system is that it is flexible and under parental control.

"Other products have recently popped up on the market which contain an arbitrary list of Internet addresses to material with sexual content, which the developer has deemed 'undesirable' and blocks them - but the list of addresses is encrypted so that you don't know what material is being blocked," he says. "We feel that the parent, the school or the employer is the one best-suited to determine what their kids - or employees - should have access to."

Heal says that sexually bizarre material is not the only offensive information that children may come across on the Internet. Net Nanny also allows users to filter out information on bomb-making, drug-making, anarchist chat lines, neo-Nazi political tracts, on-line gambling and liquor-purchasing, as well as prevent transmission of parents' credit card information.

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## Consumer on-line services

## An industry in turmoil

As more home PC-users sign up for the Internet, the post-Christmas season could leave many suppliers of on-line services shivering in the cold

The consumer on-line services industry is in turmoil - under assault from a competitor that cannot be shut down, bought out, ignored or easily disparaged. That competitor is the global Internet of computer networks and the World Wide Web service that has sprung up to serve it over the past three years - and most on-line service providers appear to have decided that "if you can't beat it, you have to be seen as a key part of it."

Significant players in the on-line services business, such as CompuServe, the Microsoft Network, Prodigy and America Online, have been scrambling over the past year to improve their connections to the Internet - and to have a presence on it.

And the newest player in the on-line services business, the Microsoft Network, ended up launching itself in late August as both an Internet service provider and an on-line service business - in the hope that it

could be seen as the best way to move on to the Internet.

But it is a tough sell, particularly when local service providers, offering connections to the Internet, are proliferating at a tremendous rate. These local service providers are often better placed to understand the needs of a regional market and operate with the business axiom of the 1990s: "Act locally, think globally".

The troubles faced by on-line service providers were highlighted in mid-November with the news that Apple Computer had taken a 5.1 per cent stake in America Online for \$12.5m - despite the fact that Apple operates its own proprietary on-line service, eWorld. There

are now rumours throughout the industry that Apple is getting ready to replace eWorld with America Online services.

The problem facing all these key participants is that they are often now perceived to offer little more than the average computer-user could obtain via straight-forward access to the Internet and the World Wide Web from a local service provider, and they often provide a good deal less.

Most of the leading information providers offering electronic services on the main on-line systems, such as CompuServe or America Online, are now offering similar access via the World Wide Web - or are in the planning stages of doing so.

The only saving grace for the on-line services now is that they offer a tried-and-tested business model for information providers to make money. This is particularly important where on-line businesses

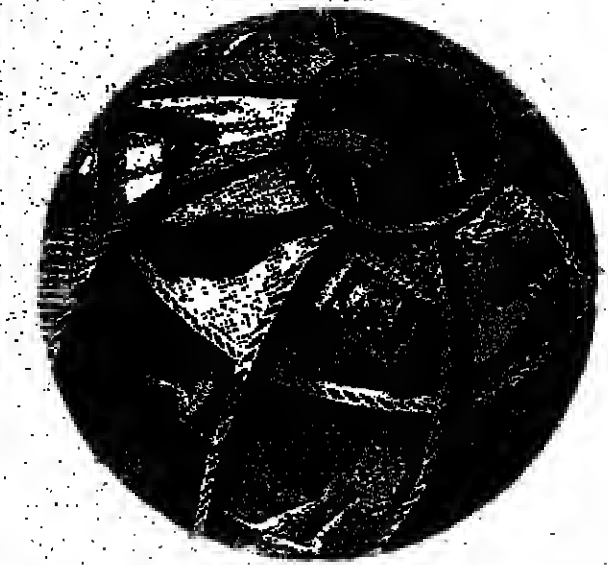


libraries and clipping services are concerned, as customers can be directly billed to their on-line services account for any surcharged information they wish to access.

But secure commercial transactions on the World Wide Web are not far away - and the established players in the market know that. For this reason, most are trying to re-invent themselves as both publishers of "exclusive" content that cannot be found anywhere else - as well as being premier providers of access to the World Wide Web and the Internet.

On the latter score, the established on-line services companies do have an edge over local Internet service providers. They already have a vast international network of data access lines so that users can gain access to their accounts from most of the main cities in North America for the price of a local telephone call - and then check their electronic mail and use the Internet.

This only impacts, however, on the corporate sector. While businesses may want to have a single Internet provider which



CampanWorld, illustrated above, announced by British Telecom, is claimed to be the world's largest dedicated on-line education and communication service, designed especially for teaching and learning. CampanWorld provides in-depth curriculum support, downloadable resources and carefully-controlled access to the Internet.

Pictured top left: Leeds-based On-Demand Information provides businesses with a new way of storing, managing and distributing information of any kind - from databases to multimedia applications.

## New digital advances

Continued from previous page:

Disney cartoon 'characters' such as Aladdin and the Lion King to front word games and puzzles. More interesting are the Print Studio titles which use the same characters to teach simple desktop publishing. Priced at £34.99, these come on floppy disk. Both the IBM and Disney titles are available through the usual high street outlets.

CD-Rom is also being used for more serious 'documentary' titles. Omnimedia, for example, has packaged up Channel 4 television's documentary on the 'Roswell Incident'. Available both for the IBM PC and the Apple Macintosh and priced at £5, the CD-Rom covers the supposed alien landing in Roswell New Mexico in 1947. It includes the autopsy footage broadcast in the UK on Channel 4 television, earlier this year, and includes a comprehensive set of background notes on the incident.

Flagtower, a multimedia specialist company, has also taken the documentary route with its range of titles. The first in the series - on World War One and the Space Race - are priced at £49.99.

Finally, if stress relief is what you want after a hard

day's multimedia activity, 7th Level's title - Monty Python's 'Complete Waste of Time' - at £49.99 - should do the trick.

## High-capacity CD technology

The multimedia personal computer is the first step towards a single device which will handle all digital information and communications. The new wave of microprocessors are powerful enough to cope with digital video, telephone communications and audio.

Indeed, the Intel Pentium and the IBM PowerPC chips have been up to this for some time now. The main barrier to the complete digital device is the storage capacity of magnetic storage and the limitations of CD-Rom.

Neither has the capacity, for example, to hold a full-length feature film. Following an agreement between rival industry groups, led by Sony and Toshiba in October, however, this is set to change.

The agreement sets the scene for a new high-capacity CD technology capable of storing between eight and 30 times as much digital data as current CD-ROM. The new standard will use the current 12cm size

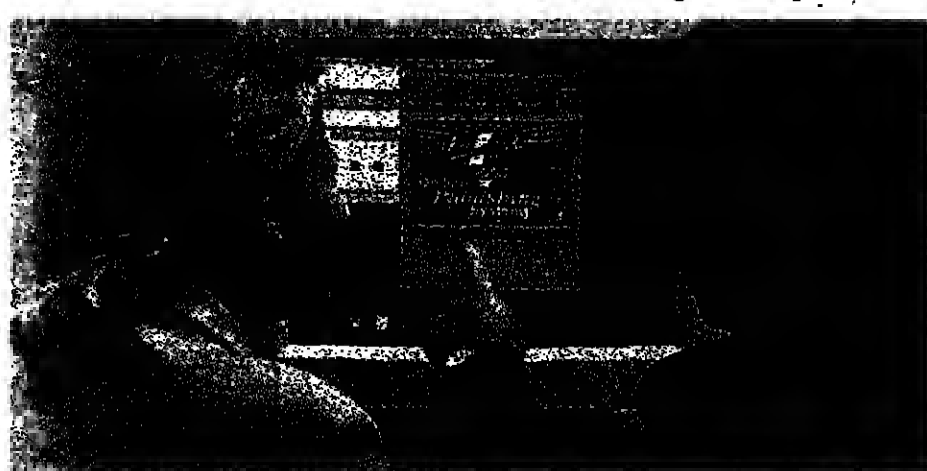
CD format - but will use different storage techniques to increase capacity. The first drives to conform to the new format are expected in 1996. The drives will be able to read current CDs - whether audio or CD-Rom. It is also expected that they will be available both as read-only (CD-Rom) or in recordable form.

Today's CD-Roms hold about 800m bytes of data which is enough for a short video. The first wave of high density CDs will hold about 4.7bn bytes - allowing over two hours of broadcast quality video to be stored on a single disk.

Later versions are expected to hold as much as 18bn bytes on a dual-sided disk. When established, it is likely that the high density CDs will quickly replace the cumbersome VHS magnetic tape currently used for video.

The agreement between the rival groups promises to avoid a battle between formats as experienced with VHS and Betamax in the 1970s. It will also hasten the day when the PC replaces the television, the video cassette recorder and the hi-fi system.

US buying trends for home PCs and games: pages 4 and 7



ICL, the computer company, has launched 'ICL Commands', which aims to revolutionise the sale and electronic delivery of publications across networks world-wide. In January, Academic Press of San Diego will launch 'Idea', claimed to be the first global academic on-line library service, based on ICL Commands.

## Personal digital assistants

By Michael Dempsey

## How to be on the move and stay well-organised

The new range of PDAs are being promoted as 'truly portable computers'

I f one item of technology can be said to be truly in vogue this Christmas, it's the Personal Digital Assistant (PDA) or electronic organiser. Led by Hewlett-Packard and an indigenous UK success story, Psion, these cheap and ultra-portable machines have shrugged off the outdated tag of "over-priced calculators" and are discreetly taking a healthy slice of business off the portable PC market. Palmtop computers, such as Apple's Newton, are directly descended from laptops, whereas the PDAs have grown out of early attempts to produce a digital pocket diary.

Users have embraced PDAs for the sheer convenience of having a "cut-down PC" that will drop into a pocket and operate on batteries that can be bought anywhere and will last for 30 hours. These systems cost between £100 and £400, contrasting sharply with expensive laptops in the £1,000-£2,400 price range.

The success of recent PDAs has spurred on other players. Sharp, the Japanese consumer electronics giant, has just launched its £399 ZR 5000 range in Europe. Sharp describes the ZR 5000 as a personal communicator. It contains a slot for a communications card that allows the PDA to be linked to a mobile phone or fax.

Clearly, the company sees PDAs as a springboard for other products. Links to printers and PCs come via an infrared device that attaches to the printer or PC, but is not physically connected to the ZR 5000.

The thinking here is that individual users can drop into a central office and download a file or print-off reports without bothering to carry around their own cabling and plug. Mobile salesforces, or staff who work from home on a rotating basis, need this kind of facility.

The ZR 5000 operates on conventional AA batteries, known to Tim Champion, European

technology marketing manager at Duracell, as "primary batteries". His company has just made its first foray into manufacturing batteries for laptop computers, referred to as "secondary batteries".

With a four-hour life and a price tag of £100-£150, secondary batteries are very different from Duracell's normal products. Champion acknowledges the limitations of portable computing power, but points out that consumer demand is to blame - "modern portables are expected to equal a desktop PC in terms of capability, so they drain off an awful amount of current. This is very high-performance processing."

The new crop of PDAs were designed to be power-efficient from the start. Small monochrome screens do not drain a battery dry like full-size colour displays.

Keyboard size is one sticking point. It is impossible to provide a full-size keyboard in a pocket-sized system. Apple's £399 Newton dispenses with keys altogether. Data is entered via a plastic pen, and software from Apple and a Russian Optical Character Recognition specialist, Paraglyph, converts letters into text. Joined-up handwriting does not qualify, and recognition is not 100 per cent. But with 200,000 Newtons shipped in two years, Apple claims to have a portable data-processor for staff who would be deterred by a keyboard.

## Keen user

Steve Cooke is typical of the PDA-user who needs to manage time and data without getting to grips with a conventional PC. Cooke works for British Nuclear Fuels, keeping track of uranium stockpiles. "I'm not one of the world's greatest computer users. But I need something that will allow me to interface with a PC and be an address book, diary and notepad," he says.

Cooke uses a £100 Texas Instruments PS-6900 PDA. It looks like a shrunken laptop, which suits Cooke - "I can drop it into the top pocket of my suit." The TI 6900 has a fraction of the storage capacity of more expensive PDAs, but its 128k memory is right for users who just want to move up from a pocket diary. It is wallet-sized and very easy to master.

Nell MacDonald is vice president of UK computer company ICL's retail trading arm. The smallest product he sells is a £1,200 desktop PC. But MacDonald carries a Psion PDA, and in a previous role, as director of computers and electronic products for the UK high street retailer Dixons, he witnessed the meteoric rise of the PDA. Psion, MacDonald says, brought precisely the right product to market with its clam-shell Series 3 machines, which have sold 600,000 units since 1991 - "this is a business-related market, it has no attraction anyone who's not running a working life. Not the rise of computer-literate professionals who can see the benefits of storing facts and figures 'on the go' was enough to make a dramatic impact".

## Digital choice

At Dixons, MacDonald saw the PDA market boom - "this product-lie came out of nowhere. It was beautifully positioned between the PC and the calculator, and more and more people understood the benefits of storing information on a PC, so they decided to burn their ring-notebooks and go digital."

MacDonald forecasts a marriage of convenience between future PDAs and the mobile phone, with one device fulfilling both functions. This opinion is shared at Apple, where researchers are working with BT to outline the future direction of the Newton.

Hewlett-Packard has sold 130,000 100LX and 200LX palmtop computers in Europe in the last two years. This range is being augmented with the £250 Omnigo PDA, and that is destined for a new identity as a communications centre.

The Omnigo 700 will boast a mobile phone-docking station on its lid, allowing users to clip on their phone without messy external connections. This model will be available in 1996 with a phone for a total price in the region of £300.

ICL has no plans to muscle in on this marketplace with its own PDA, but MacDonald emphasises that his PCs to mainstream company cannot afford to ignore the PDA phenomena - "we do have to stay close to these products and understand the market. We must be clear about how PDAs link up with PCs".

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## Informix's Phil White on AT&amp;T WorldMark Servers.

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25/12/95



■ The battle for the living room

By George Black

# Interactive TV put to the test

Big investments are being poured into research and technology infrastructure

Interactive television could provide a wide range of useful new services to the home office, but at present it would be rash to predict a boom. It remains unclear how many people would use such services, how they would be provided and how they would be made commercially viable.

The UK is probably the most advanced market in the world in this field, so there is little to be learned from the experience of other countries. US trials at Orlando, Florida, have had very heavy investment but are reported to be no further advanced than those in the UK.

Many large corporations - telephone and cable companies, publishers and broadcasters, film makers and software developers among them - have a financial interest in creating a market in the UK. They are squaring up for what some commentators

have called "the battle for the living room". But they have yet to put together all the pieces to be able to offer these services. Meanwhile, interactive services based on the Internet and other on-line networks are growing so fast that they could have taken a large part of the market before the interactive TV medium has matured.

Huge investment is being poured into the UK's technology infrastructure to support interactive TV, but the commercial side of the strategy is still hazy. Experts differ on whether interactive entertainment will drive new business services or vice versa. British Telecom is trying to address these issues in its trial of nine services involving more than 100 "content providers" and 2,500 potential customers in Colchester and Ipswich.

The main aim is to test the financial viability of the proposed services. BT expects to make an initial assessment of the results in mid-1996 but will say nothing about any delivery schedule. It is being challenged by the cable companies, but Mr John Matthews, principal consultant with the Ovum

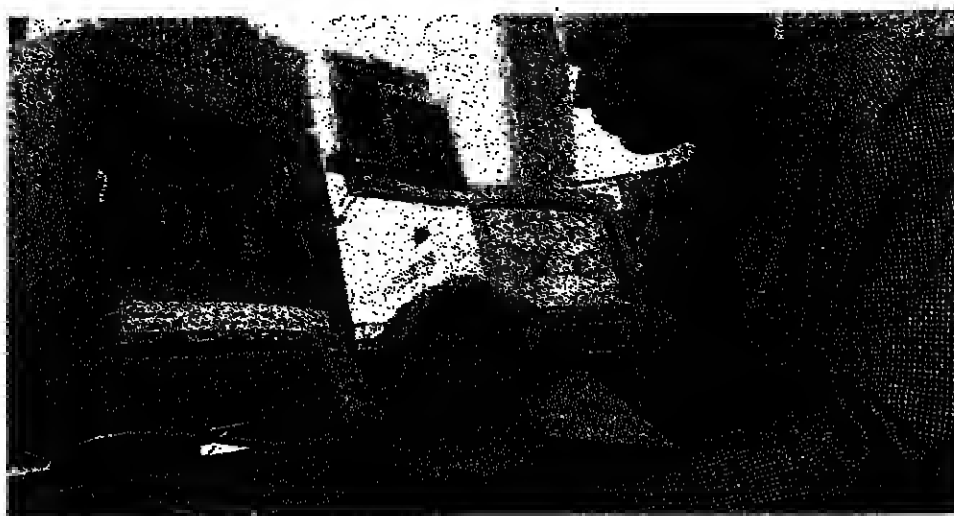
consultancy, thinks it is powerful enough to stand up to them - "its market share may fall, but I would expect it still to have over half of the home communications market in five to 10 years," he says.

The lifting of restrictions on BT's entry into selling entertainment over its network, whenever that comes, should help it to gain more of the business services market.

The cable industry has so far failed to penetrate the UK TV market to the extent it had hoped. Cable companies are therefore seeking to tackle the loss of momentum in their industry by a strategy of consolidation of ownership, joint promotion campaigns, improving programming and increasing telephony subscriptions.

However, as Bryan Van Dusen, principal analyst at the consultancy Yankee Group Europe, says: "Cable is an immature industry with an immature infrastructure and few resources to spare at present to think about interactive TV services."

Another interactive TV trial is being run at Cambridge by Cambridge Cable and four consortium partners. This initia-



Sightseeing by spaceball: futuristic tourism is just one of the TV-based home services being developed at BT Laboratories in Suffolk. Here, designer Andrew McGrath uses a spaceball, rather than a remote control pad, to explore the antiquities in a sixth century basilica, created on screen

tive is widely held to be based on more modern technology than that of BT, making extensive use of ATM (Asynchronous Transfer Mode) telecommunications, and is probably the most advanced of its kind in the world.

Like BT's, the Cambridge trial is testing the acceptability of new interactive services. During next year it may become clear what sort of services will be offered to viewers and on what terms. But it may be three to five years before a wide range of services becomes available.

Set-top boxes are being provided to the Cambridge trial

by the British company Online Media, a subsidiary of Acorn Computer, which is in turn owned by Olivetti of Italy.

Online Media's chief executive Malcolm Bird says that much effort has gone into designing an extremely simple user interface - "people have to be persuaded by a one-minute demonstration that they will be able to cope with it," he says.

The interface has been well received by the 100 homes, schools and businesses in Cambridge at present on the network. In his view, the cable companies are building a better infrastructure than BT's for providing interactive ser-

vices, but he notes that this advantage is counterbalanced by BT's much greater strength in the market. All this means that the initiative rests with the Internet access providers, which are fast building up a thriving business while the telephone and cable companies are still at the experimental stage. The latter may fear that they will have invested heavily in an infrastructure only for others to reap the rewards as service providers.

Bryan Van Dusen forecasts that the on-line services providers will have built a commercially robust service within three to five years, but it will take BT and the cable compa-

## New show planned for IT in the home

A new European trade show for the consumer electronics sector, CeBIT Home, will make its debut at Hannover in August next year, writes Michael Wiltshire.

The event, which may attract from 700 to 1,000 exhibitors, will be a spin-off from CeBIT, the big annual showcase for the world's information technology and telecommunications industries.

CeBIT 96, from March 14-20, will thus become "a more concentrated show, with a stronger focus on the professional buyer," says the organiser, Deutsche Messe AG.

The inaugural CeBIT Home, due to run from August 28 to September 1, 1996, will meanwhile target thousands of home office users, as well as consumer and home electronics dealers. The range of exhibits will include information technology, network computing, software, services, telecommunications, consumer electronics, media, home automation and security equipment - "an expanding market for home applications has grown up alongside the professional IT business market," says Hubert Lange, a member of the organising board.

Interactive TV service providers could combine with local newspaper publishers and libraries to disseminate information on local events, services and facilities, as well as adverts. In the end, success in this market could come down to who can make it easiest for the home-user to browse the "small ads" in search of a second-hand car.

## FT Outsourcing IT services

Facilities management

### ■ The 'partnership' concept in IT outsourcing

By John Kavanagh

# Customers need convincing

Outsourcing supplier companies are seeking to woo potential customers into full IT partnerships, but the prime interest of most businesses is cutting costs

Partnership between users and suppliers is being hailed as the future for the computer facilities management business, but so far only tiny numbers of users - or even service companies - are getting to grips with it. Indeed, existing contracts suggest that suppliers have some way to go before convinc-

ing customers.

Facilities management has traditionally been the contracting-out of computer operations and software support over a long period. But falling computer costs have made it increasingly difficult for suppliers to continue to squeeze most of their profit out of running the hardware and operations more efficiently. They are therefore seeking to take on system development work, again over a long period - which means promoting the idea of a partnership, if not intimate involvement in the customer's own future.

This shift of emphasis was sharply highlighted in October when a big UK facilities management company, Data Sciences, itself became a facilities management customer by contracting-out its mainframe computer processing operations to a rival, IBM.

Data Sciences said it wanted to focus instead on supplying "premium, added-value skills", notably applications software management and desk-top computing services.

Another leading services company, Hoskyns, the UK arm of French group Cap Gemini Sogeti, says the rapid changes in both business and technology means traditional facilities management is no longer adequate for customers.

"In traditional outsourcing, a customer says to the supplier, 'Do what I was doing, but do it more cost-effectively,' and the

tendering is done on a 'cheapest wins' basis," says Hoskyns director Charles Cox.

"This is no longer adequate to meet changing business needs. The high cost and unresponsive nature of central IT facilities, with applications and skill sets based on history, are a major drag on organisations striving for speed, flexibility and value. Business objectives now change too quickly and too often and cannot be enshrined in long-term outsourcing contracts. Companies now have an increasing need to have their portfolio of



John Little at PA Consulting Group: Users still hold traditional views about facilities management and cost-cutting

applications evolved and refreshed to find new ways of using IT to move the business and its processes forward."

He adds: "Users should not try to freeze their current IT set-up in the invitation to tender, or set the service boundary in terms of current functions."

However, whether such views are getting through to the market in any big way is questioned by John Little, a senior manager at PA Consulting Group who works on the company's annual IT outsourcing survey. Users still have a traditional facilities management view and look little beyond the possibility of cutting costs, he says.

Suppliers, too, are still "immature" in their view of this business, adds Mr Little - "users say that suppliers claim to be pro-active and innovative, but that in reality they're not. As companies outsource more and more IT, suppliers need to develop partnerships between themselves, as well as with the customer. Customers are still having to manage things at a nitty-gritty level, because they don't believe the suppliers are mature enough to arrange the detail between them."

Even the leading service suppliers are not rated far above internal IT departments by end-users. Research firm Input found recently that EDS, a partnership pioneer, plus IBM and Cap Gemini Sogeti were given an average rating of 3.4 out of five by end-users for business re-engineering skills - only just ahead of the 3.1

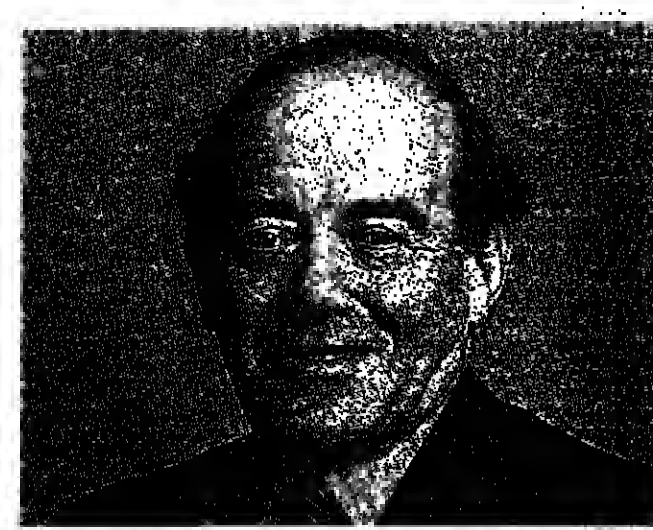
rating given to IT departments. The three services companies did slightly better on applying IT to business, winning a rating of 3.6, against 3.0 for IT departments. As researcher John Willmott puts it: "The first conclusion here is that neither the outsourcing vendors nor IT departments are especially highly regarded."

If suppliers are to promote partnership they might have to overcome customers' own ideas of what this means - and, indeed, whether IT is a special case in the first place.

Class supplier Pilkington contracted out its mainframe computer service to EDS in 1991 while it moved to distributed computing. Last year it renewed the contract for another three years, getting EDS involved in system development.

"When we outsource anything we try to establish a sensible customer-supplier relationship, but the idea of partnership suggests a closeness and longevity which don't exist in the business world," says Sir Robin Nicholson, executive director for IT at Pilkington. The sensible relationship that he talks about includes being available for frank discussion to resolve problems. "It's important to work together at a senior level, to speak your mind, but not fall out."

Sir Robin adds: "It's no different to business relationships we might strike up with our own customers: for example, a car manufacturer introducing a new model will look to us to



Sir Robin Nicholson, executive director for IT at Pilkington: the concept of partnership in IT outsourcing 'suggests a closeness and longevity which don't exist in the business world'

be a long-term supplier of windscreens."

Charles Voughton, outsourcing manager at British Coal, agrees. British Coal contracted out its IT to Philips Communications & Processing in August.

"The outsourcing process is similar in many areas," he says. "Assets, including people, change ownership, and we as the client can specify the service and set up the controls."

If suppliers might find it hard work persuading customers into partnerships, they could also find that long-running agreements bring their own risks.

In May, Bristol Water transferred its facilities management contract from Hoskyns to Sema, even though it was well satisfied with its six years' use of Hoskyns services.

The original contract covered a move from a mainframe to distributed, networked systems. Hoskyns ran the existing service and managed

the development of the new systems.

When the contract came up for renewal, Bristol Water went out to tender and eventually had a short-list of Hoskyns, Sema and ITNet.

"Hoskyns was in a strong position, because it was the incumbent supplier and knew us well and we were very satisfied with the service," says Bristol Water director Dr Arnold Bates.

"However, being the incumbent turned out to be a disadvantage. If they came up with new ideas, we could have asked why they hadn't told us about them before."

"It became clear during tendering that a new supplier could bring new enthusiasm and vision to our IT."

These users' views suggest that although customers are expanding the scope of traditional facilities management, they have yet to be wooed into full partnership with suppliers.

By John Kavanagh

### ■ The people issues

# Staff anxieties are often soon dispelled

Those who survive an IT facilities management contract and can make the culture change, may well emerge with better prospects

Tony Fishwick had a double disappointment when his UK employer, the Home Office, transferred most of its IT division to computing services group Sema, a year ago.

First, there were natural concerns about moving to a new employer and the fear of redundancy, especially after more than 20 years in the Civil Service. But in addition there was the disappointment of knowing that the IT division's own bid for the work had failed.

Since then, however, Mr Fishwick and his colleagues have almost all become quick converts to working for a services company. Their experience is typical: staff anger and fears might sometimes get aired publicly when contracts are announced or in the office, because most people fear the unknown, but dissent is rarely heard once people settle in.

Independent research confirms this. The last annual sur-

vey by PA Consulting Group found that damage to staff morale was the main drawback to contracting out IT: it was mentioned by 45 per cent of the senior managers questioned. However, this was related to immediate concerns: uncertainty about what is happening, concern about job security and splits between staff who transfer and those who stay.

In addition, staff morale became much less of an issue once a contract went live: a quarter of the companies questioned had later reverted to internal IT services and less than 25 per cent of these mentioned staff morale as a factor. In other words, around 6 per cent of the total.

"Our fears were quickly dispelled," says Tony Fishwick, who was manager of desk-top computing services and head of a team of 44 people at the Home Office. "Sema quickly held meetings with us all and put their own people in place to look at our operation, so we got closely involved with them before the cut-over date."

Indeed, the suppliers' experience here is usually far greater than that of the existing employer. Lynne Goff, who transferred to Hoskyns after the Ministry of Defence went through market testing at its Operations West computer centre, says the supplier was more helpful than her employer or her union - "much of the time



Lynne Goff: when information was in short supply, Hoskyns were always on hand to help

it was hard to get information from the unions or the MoD itself, but Hoskyns were always on hand to help, even in matters which weren't really their responsibility."

Moving from a Civil Service or company IT department to a commercial services organisation usually means a significant culture change which is beyond some people: Tony Fishwick at Sema says three of his 44 staff returned to Civil Service jobs and two took voluntary redundancy agreements. But he adds: "Most people had recognised that a

culture change was needed in any case. Previously, the IT department controlled the budget and decided who would get what, and when."

"This has been completely turned round and we now meet customers' requirements. Instead, the budget is now controlled by our customers."

Staff at other services suppliers confirm that they, too, had to come to terms quickly with this approach, which is infused by induction courses, top management leadership and the attitude of existing managers and staff.

It is perhaps most poignantly promoted by pay - "we were accustomed to collective bargaining, but pay is now performance-related, meaning that you know greater effort will be rewarded," says Lynne Goff at Hoskyns.

Services companies say this can also be a way of hinting to low achievers that they might not be wanted. Even so, Lynne Goff sees it in a positive light: "There are no barriers to advancement except the ability and desire to succeed. Everyone gets the encouragement, training and facilities to develop their potential to the full."

This raises an issue usually highlighted as a key benefit of transferring to an IT services company: instead of working for a peripheral department in a large organisation, IT staff

become part of a company in which their activities are the core business.

David Petcher, an IT manager at ICI Agrochemicals when his 63-strong team was transferred to Hoskyns, says the move came at just the right time.

"I felt my career was heading nowhere," he says. "The trouble with working for an in-house IT department is that there is little chance of progressing to a senior position elsewhere in the organisation. By joining a company whose core business is IT services I was sure there would be far greater career opportunities."

Mr Petcher's hopes have been fulfilled, thanks, he says, to the training, career opportunities and "clear management focus on individuals' career paths" in the company.

However, when IT is transferred to a services company, some people must stay behind to manage the contract and develop IT strategy. Stefan Samek, formerly in a 100-strong IT department at the London Borough of Brent, is now one of team of four, with the new role of IT commissioning manager. Last year, Brent contracted out its central mainframe service to Data Sciences while the service wound down and responsibility for IT was passed to council departments.

Mr Samek and his remaining colleagues became responsible

for corporate IT strategy, providing initial consultancy and advice to end-user departments and commissioning corporate IT and communications systems and services.

"It's been a liberating and fulfilling experience," he says. "Working in a central IT department means you focus on the day-to-day issues of getting the production work done. But when the production work gets contracted out you can look beyond it at strategic issues. In addition, you progress from a specialist to a generalist: you gain experience across user activities and work in teams of different disciplines. IT people do not usually have the opportunity to do this and therefore do not get the chance to move up the organisation outside IT."

This can be important: Mr Samek says his career could be restricted now that he no longer manages a big team: "If I went for a senior job in another local authority they'd ask how many staff I manage," he says.

Generally, though, it seems that those who survive an IT facilities management contract and can make the culture change, emerge with better prospects. For as David Petcher at Hoskyns points out, 70 per cent of staff at all levels in the company have joined through facilities management transfers.

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## ■ Artificial intelligence: data analysis

## Smart ways to reach the right market

Too much information can be a worse problem than not having enough. In the field of marketing, there are now myriad ways of finding out about customers and targeting them

Marketing data comes from many sources - almost too many. Data from external sources such as census, postcodes and demographic systems have to be dovetailed with internal point-of-sale, accounting records and all sorts of other systems.

So-called expert or intelligent systems can help make sense of such amalgamated data. In the technique known as 'trending' or 'data mining', users can set a piece of software on to the job. The so-called 'agent' searches the data, looking for a particular pattern.

First, users have to know what they are looking for: a pattern of behaviour, a certain set of criteria, or a set of characteristics which suggest a certain likelihood of outcome. The other term often used for intelligent systems, 'neural network', suggests an ability to make connections in a way that human intelligence can. In fact, when a computer makes connections, it is not

intuitive, but a matter of searching vast amounts of data and making matches.

One element in the search is speed and efficiency. The other is the ability to 'learn' by correlation of one fact with another to create a third assumption or suggestion. The system can bring something to a user's attention this way, but human judgement on the facts is what matters.

TDS Marketing Group is one of the new breed of companies which is using computer 'intelligence' as well as processing power. Founded in 1988 and based in High Wycombe, Bucks, the company is currently 50-strong and taking on another 30 people specifically for telemarketing.

"I hope we are leading the way in making sense of huge amounts of data," says Adrian Gregory, chief executive officer of TDS.

TDS insight, the marketing specialist division, is developing 'intelligent' marketing tools, typically working with user-organisations for segmen-

tation and targeting, de-duplication and data cleansing of their own data - "our job is to help them make sense of what is often a huge amount of customer data to make use of it for improved marketing and customer targeting as well as sales planning issues," says Mr Gregory.

The problem is that the volume of data is not only large, but often inaccessible, hidden in everything from sales and order processing systems to payroll - "it's just hidden away, but if you could only provide access it would be immensely valuable," he adds. The volume also makes the system slow and cumbersome. It could take days to mill through the detail by which time the question has gone out of date.

Mr Gregory discovered the software, supplied through White Cross, at a London seminar last year. He watched the product using massively parallel processing (MPP) to query huge amounts of information in a few seconds, and was immediately excited by the possibilities.

"We saw that it was possible to ask lots of questions and explore data. We were immediately excited by potential applications in marketing. So we approached one of our more

forward-thinking clients, DHL, and they were enthusiastic and could immediately see the benefits."

The route forward was for DHL to use TDS' expertise to implement and interpret the White Cross' proprietary (non-



Adrian Gregory: 'making sense of huge amounts of marketing data'

standard) technology. TDS bought a version from White Cross to use as the basis for a marketing-specific application.

"In the last five years have transferred and set up the marketing database for them on the White Cross machine," explains Mr Gregory. "Once it

was in-house, we started developing tools and software to make the best work in marketing application. Our resulting system, called 'mar-Kit', is a toolbox of various software applications."

The Mar-Kit software works under Windows on a PC, connected to the MPP computer via a communications processor.

Some of these applications are straightforward analysis tools, but one has an element of 'intelligence'. The first step with a new client who has a huge amount of information is to look at the data and the quality of it.

"We load it onto the system and the Data Auditor tool tells you what fields there are, their minimum and maximum values, which of them are populated, and so on. It then produces graphs so that you can see the spread of existing data: this helps identify customer-base, pattern of purchase, and so on."

The tool called HeatSeeker is the model into which the software supplier White Cross, working with TDS, built the element of 'intelligence'. The user sets it an objective: for instance, the profile of a successful group of customers, and it will mine down into the mass of data and look for rela-

tionships between fields, looking for hot spots or patterns.

"The great strength here is that it is working on the full dataset," says Mr Gregory. "Too often such sampling systems work on a subset for sampling and then extrapolate the results, which can be a flawed method with limitations."

"It's remarkable the savings that can be made - sometimes improving the targeting by a factor as high as forty, of companies likely to buy a particular product," says Mr Gregory. "The success we are having is significant," he concludes. "In retail value terms, it's cost us £1.2m - it's a big investment for a company of our size but the bureau service we are able to provide as a result has paid back the cost in six months."

"It also means we get better savings by better targeting: we use it for analysing our own data. It's holding the data in a way set up that is perfect for fast analysis."

The White Cross system ranges from £150,000 upwards, running on a proprietary computer which is nevertheless 'open' in that it can be used with any other client-server system, using Microsoft's open ODBC structure.



Top prize winner: Daniel Harris designed his winning software while studying at Brunel University: see details below. He received a cheque for £3,000, plus a suite of Computer Associates' micro product software and a Fujitsu ICL ErgoLite system - prizes totalling £10,000

## ■ Business Software Challenge

## The pick of the bunch

Prizes worth £20,000 were shared among this year's winners at the London presentation

Eight finalists from the largest entry yet reached the final judging round of this year's Business Software Challenge '95. The entries were astonishingly varied, ranging from specialised applications - gym-booking systems, manufacturing-planning and schools administration packages - to tools built to help C++ (the programming language) and Visual Basic programmers, writes Claire Gooding.

Among the entries systems with the potential to be commercial winners, including the one which convinced the judging team (unanimously) that it deserved first prize.

Judges gave particular weight to the analysis of the problem and the quality of the solution the students had produced. They also assessed creativity, marketability and other factors.

The 18-strong judging panel (see panel, right) was drawn from academia and business. It included representatives of the sponsors, Computer Associates, the software company, and ICL, the computer and information management company.

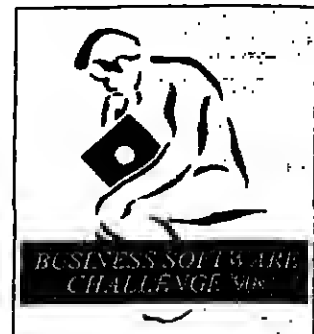
The Business Software Challenge '95 was founded in 1991 by Computer Associates to recognise the design skills of students in higher education. The prizes total £20,000, including cash, hardware and software. This year the prizes were presented by Judith Scott, chief executive of the British Computer Society, at a ceremony at the Royal Lancaster Hotel in London last week.

## First prize

■ Rollingsstock Maintenance System, by Daniel Harris of Brunel University.

If you need to repair the lavatory seat in a railway carriage, you may have to spend three hours tacking 26 manuals before you discover that the part you need is called a 'hopper cover'.

Multimedia is an ideal medium for the maintenance of vehicles, and Daniel Harris



● The 18-strong judging panel was drawn from academia and business. It included representatives of the sponsors, Computer Associates, the software company, and ICL, the computer and information management company.

● Other representatives on the judging panel came from the supportive organisations: the British Computer Society; Coopers & Lybrand; the Institute of Management; the Worshipful Company of Information Technologists; and the FT-IT Review of Information Technology.

was able to see just how valuable such a system could be when he worked for six months at ABB's rolling-stock maintenance centre at York. British Rail is not allowed to run trains without proof of correct maintenance, and the Visual Information System is a great aid not only to finding a part, but seeing what it looks like, where it fits, and all its supporting documentation. Thorough testing with end-users - mostly computer novices - and provision for the maintenance of the system clinched the first prize for this robust, well-thought out product.

## Second prize

■ Bankers' Support System, by Harjinder Mann of the University of Greenwich.

The hot topic in banking is understanding the customer. Harjinder Mann's Bankers' Support System is very much a personal, easy-to-use PC tool for the individual bank manager, whereas systems to profile customers are usually the subject of massive centralised mainframe projects.

The Support System is a flexible toolset that can be adapted to reach into current and historic data to meet a set of criteria requested by the user, who

Continued on facing page

## ■ Neural networks in finance

## Banking applications

Continued from previous page:

enjoyed greater success with Personal Loans Protection Insurance or PLPI: this is an attempt to marry protection schemes for financial products to the likelihood of any one individual needing to claim.

PLPI is potentially a boon to TSB customers, who stand to receive quotations matching their personal circumstances rather than fees assessed on the basis of thousands of claims. TSB is always willing to pay up when protection is invoked. Edisbury stresses, but it does want a precise calculation of its exposure on each agreement.

PLPI is based around neural network design software from UK company, Recognition Systems. The system was devised on the basis of 17 months of past claims. The example of these claims trained the network to assess new applicants.

Edisbury says TSB has already altered its pricing structure for loans protection as a result of PLPI's improved calculations.

Neural networks are not the only intelligent computing technique to which TSB is engaged. Genetic algorithms

are an emerging computer science that allows users to feed 'what if' scenarios into a program. These are being studied as a possible tool in risk assessment. 'Fuzzy logic', a method of allowing a piece of software to roam within set parameters and evaluate decisions, is also under test.

What distinguishes TSB's work in intelligent computing is that significant advances have been made inside five years for very little expenditure. Edisbury estimates that NNPS and PLPI cost the bank around £10,000 each. "This work is very, very cheap, because the software tools cost around £2,000".

The key to success, he insists, lies in the initial choice of data to be programmed-in. This is where the intelligent software gets its raw material.

Edisbury is determined to distance his "industrial strength" work from the early, naive hopes of the AI community - "personally, I don't like terms such as Artificial Intelligence at all. Whatever you call the process, these are only ways of working. And you will always need human intuition. No system will function without it".

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Solutions for a small planet



Accounting: the need for international, integrated and informative software packages

# Users demand more flexible solutions

As organisations develop 'flatter' structures, they need broad-ranging software. Claire Gooding reports on how the re-structuring of companies has had an impact on their choice of accounting packages

The three T's - Integration, International and Information - currently dominate the thinking of users and developers alike in accounting. Users demand new levels of integration to serve their new 'flat' structures: where companies used to buy separate ledgers, they now buy a package which not only integrates all the accounting functions, but may itself link with operational systems, for manufacturing, logistics, or sales and marketing.

The new flat structures often

centralise operations such as sales, or even accounting itself, across national borders. Users need to scale-down the overheads of running different accounting systems in various countries. As a result, they look for flexible solutions that can support different configurations of manufacture, supply, and distribution, linked with accounting software that will support the various national fiscal regulations and reporting structures.

Flatter management structures also bring with them an

onus to know more detail about a broader spectrum of activities. Companies who are 'downsizing' or 're-engineering' (British Telecoms is a good example) often cut out swathes of middle managers who used to be the information providers.

Companies are doing something more fundamental than introducing a new set of programs, according to Roger Hornby, director of the European consultancy OSI, which describes itself as a management support company.

Mr Hornby has been helping users implement accounting systems since the late 1970s - "the first issue is to recognise in advance is that what they are doing is changing people's roles. Finance staff might find themselves interpreting information and supporting management decisions rather than just processing data."

The executive information system, EIS, has changed its cost to become an 'enterprise intelligence system' as computer users realise that good detailed information should not be the sole preserve of top managers. Increasingly, the applications vendors see the third T - the delivery of good 'information' - as part of their job. Many accounting packages

now offer flexible reporting tools and the kind of facilities once offered by EIS - drill-down and 'traffic lighting'. These are alternatives to bolt-on tools for data access and reporting (sometimes known as 'Dart'), but are unlikely to replace specialised consolidation and reporting tools from specialists such as Hyperion and Dillion.

Beneath these issues of functionality lie the broader developments in technology. Many users have taken the opportunity offered by re-engineering to devolve centralised mainframe functions to localised networks using an 'open' architecture. The client-server architecture suits the flat organisation very well.

Recent research by US-based analysts at the Forrester Group identified that the majority of Fortune 1000 companies were looking for a move to client-server applications, based on a sampling of more than 40 organisations. Nearly 70 per cent cited 'better end-user access' as the reason. Users face a difficult choice, says Forrester: 'legacy' companies, such as SAP that 'has a smooth migration path', or those that have started from scratch with new technology, such as SQL Financials, or the Dodge Group.

Established suppliers such as CompuLink Associates, PeopleSoft and many others have already adopted client-server

technology. Open systems have made globalisation an imperative for users, but have also helped to create a wider market for software developers.

The demand for international operations and support is the biggest challenge at the top end of the market: providing local support can be a bigger challenge than designing flexible software.

A few European contenders have made the leap from home ground to flourish elsewhere, helped by the move to 'open' systems. Packages such as SAP's R/3, itself an integrated combination of accounting and manufacturing, are emerging from national niches to establish themselves on the international scene. However, the more modular or parameterised the solution, the more users need local consultants to install it. Implementation fees are becoming an important part of income for some developers.

SAP, from Germany, Scala from Sweden, and Exact from the Netherlands, are among the best-known European packages, while there are several contenders from the UK including Tetra, Coda, and JBA.

At the top end of the market, the US suppliers such as SSA and Dun & Bradstreet have always looked at a global as well as local US markets, an

attitude that gave them international muscle. There is evidence that the same global attitude has percolated down-market, with the same effect on smaller developers. Market concentration, is one of the trends highlighted by Jyoti Banerjee, head of the research arm of accounting software consultants Tate Bramall - "we're seeing the concentration of sales into the hands of fewer but larger vendors. There used to be 800 or more vendors in the Tate Bramall directory a few years ago, but series analysis of sales in the last three years shows that 50 per cent of all new sales are going to only ten vendors. Two thirds of developers have disappeared, either through going bust, acquisition, or through the effects of age."

Internationalisation accentuates the trend of market concentration even further, argues Banerjee - "leaders of national stature are emerging in geographical markets, but some of them are beginning to move into the international realm: these are the companies that will see a return on their investment in a flexible product that can sell as well abroad as it does in its country of origin."

Continued on next page

## The 1995 Business Software Challenge

# High quality in record entries by software designers

Continued from previous page

can then build a 'picture' of a particular customer or set of customers, depicting and linking details from various accounts, showing fluctuations, trends, and balances. Bankers need to use intuition and judgement on a customer's lifetime value, and the judges were impressed with the understanding of a complex business.

## Highly commended

Three entries on the shortlist narrowly missed winner status and were considered worthy of a 'highly commended' award:

■ Visual Basic Developer's Assistant by Russell May of the University of Wolverhampton.

The Developer's Assistant started out as a project to standardise error-handling in Visual Basic programs, and grew into a full-blown product which would provide solid, bullet-proof applications.

A West Midlands police officer who is pursuing further education in IT, Russell May

has discovered his flair for entrepreneurial IT products. His product is an animated debugging tool that also strips out redundant test-code, ('executable bloat'), prints colour-coded listings, and checks user interfaces, measuring the user-friendly 'usability' factor of a program. New versions of Visual Basic might give this product a short shelf-life, but it has great commercial potential in the meantime. It was a close contender in the closing stages.

Also highly commended was:

■ Computerised Product Catalogue by Amanda Davies of De Montfort University.

Amanda Davies' multimedia catalogue was conceived as a cheaper and more flexible solution to providing product information than the traditional paper catalogue. The prototype displays the fire and safety products manufactured by Honeywell, but the software was designed to be a generic tool for constructing catalogues. It includes tools for input of pictures and text, for displaying the information subsequently, and is adaptable to use with CD-Roms, tapes, or even over the Internet.

As well as being multi-lingual, it provides simple tools for end-user browsing and searching, and is currently in use at Honeywell. In theory it could be used to create cata-



Harjinder Mann: his Bankers' Support System won him the second prize, worth £5,000

logues for all sorts of product.

Another highly commended entry was:

■ Computer Automated Plant Selection System by Alan Kennedy and Andrew

Dodd of the University of Liverpool.

The Computer Automated Plant Selection was commissioned by cable-maker BICC to solve a very specific planning problem. It can take two weeks to work out the configuration of cable-making machines on the factory floor, to ensure maximum efficiency in production for the expected workload.

The aim was to create a system in a short deadline, partly to aid in the design of a new factory in Vietnam. It had to fit in with all the specifications dictated by BICC, but left some room for some flair from its authors in the use of automated help, and the scoping of possible scenarios.

## Runners up

■ Academic Review Programme by David West of Kingston University.

The National Curriculum in the UK has put a notoriously high workload on teachers in the area of paperwork and assessment. David West's solution, the Academic Review Programme, is designed to make future report-production, assessment calculations and performance monitoring much

easier for individual teachers, once the initial information on pupils is entered in the system.

Developed in close association with a London school, the system has grown to include features for feedback to teachers, parents, and the students themselves, particularly in the long-term tracking of performance. This feature could lead to lead to a wider market in higher education and other areas, if schools have the resources to buy (for around £200-£300) and to maintain the system.

Another runner-up was: ■ Naples: a Class Library Management System, by Calum Mitchell of Napier University.

An increasing number of computer students are learning the C++ programming language for the design of object-oriented programs (OOP). One of the theories of OOP is that objects - literally chunks of code - should be re-usable, almost like functions stored in a library. The weakness is that re-usability depends on knowing what objects already exist, where, and exactly what they do.

Calum Mitchell's project built on the work of a previous

student whose project (called 'Rome') had built a database to store previously-written 'classes' of code. The Naples project went one step further, providing a colour-coded index of classes and their features, including links and inherited features.

Another runner-up was: ■ Re-usable Intelligent Collaborative Hypertext ('Rich'), by Weigang Wang of the University of Liverpool.

There are plenty of problems in producing good documentation, and one of them is keeping in line with other technical authors in a team. Weigang Wang's system for Re-usable Intelligent Collaborative Hypertext ('Rich') is designed to help in the area of authoring and document publishing. 'Rich' provides a logical structure for the narrative process by which documents evolve and grow into different versions. The system also provides an indexing tool so that chunks of text can be located and re-used, which promises great improvements in the efficiency of technical authoring. A great deal of thorough work had gone in behind the well-structured screen presentation of this product.



Jyoti Banerjee of the Tate Bramall consultancy: 75% per cent of new sales are going to the top ten accounting software vendors



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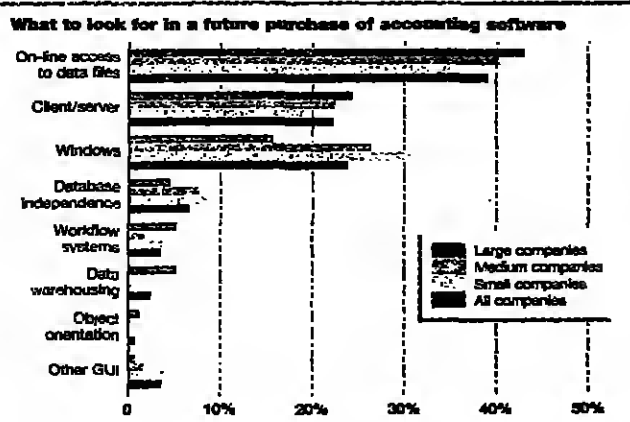
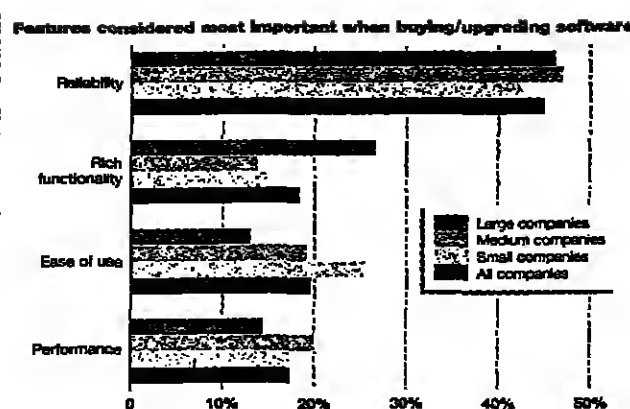
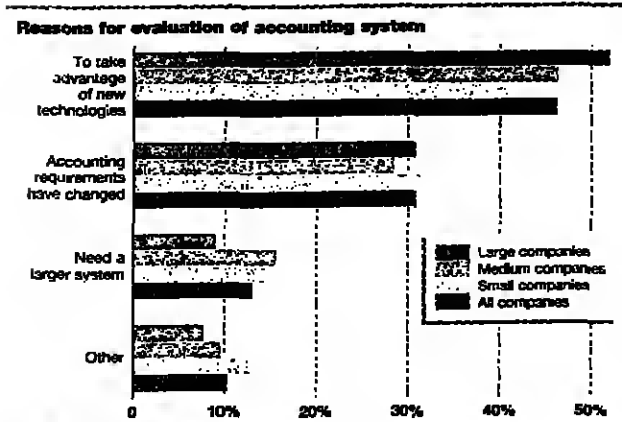
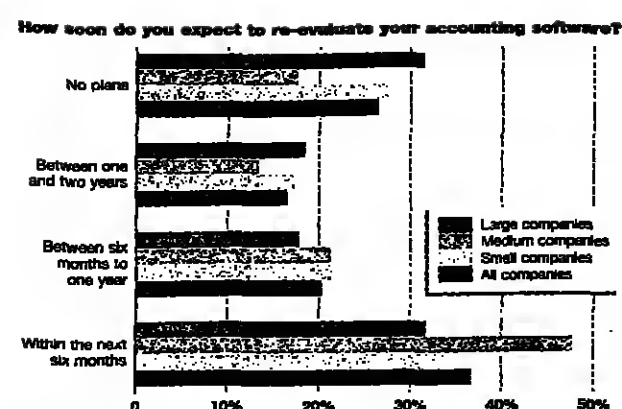
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## Two-thirds of users want a change of accounting software package

A large proportion of companies are planning to change their accounting software to take advantage of new technologies, according to research carried out by Tate Bramald in association with the 'Software in Accounting and Finance' exhibition to be held in the UK in January 1996.

Sponsored by Hyperion, the developer of financial reporting software, Tate Bramald surveyed 500 companies, a quarter of them from Times

1000 companies. Two-thirds said they would re-evaluate their current offering in 1996. Only a quarter were happy to stay with their existing vendor, and a third were convinced they would not.

Reliability came top of the list of concerns, ease-of-use second, and functionality was only third. Stability of the supplier came fourth - considerably higher up the priority list than before.

Users expect a higher degree of customisation with a tai-

lored solution for a package price. On-line access to data was identified as the key benefit of new technologies: about 45 per cent of people made on-line access available to other departments, although security was the main barrier to wider access.

"People are beginning to realise that accounting information has a role outside the accounts department," comments Tate Bramald's Jyoti Banerjee.

As to hardware environ-

ments, only two per cent of the sample are using Microsoft's NT at present, but it is listed as 23 per cent as the preferred platform, a strong contender against Novell and Unix-based systems. Windows 95 (under two per cent currently) is forecast to rise to 23 per cent.

"Software in Accounting and Finance" will take place on January 23-25 at the Ramada Hotel, Heathrow. For more information, call Interactive (Software) on 0181 541 5040.

## Suppliers react to the need to 'go global'

Continued from previous page

Object-oriented packages may reverse the trend. The first such accounting package was launched in 1993 by Software 2000, and developers are increasingly beginning to see the benefits of flexible design.

Mr Banerjee suggests that the whole idea of object-orientation, with objects that perform certain functions, "may well reverse the internationalisation process and take us to a new area where large international vendors provide the accounting framework, with the help of a small specialist".

Research suggests that users are open to change (see *charts above*) - "the new paradigm offers graphically-based screens, distributed processing, and better access to data wherever it resides. The technology is so pervasive that people have to change simply to get the benefits of technology," adds Mr Banerjee.

Even at the lower section of the market, the Sage Group, the highly successful UK company founded in Newcastle-up-

on-Tyne, is reacting to the need to 'go global', and it is using object-oriented technology to consolidate its research and development.

"The majority of Sage's business is in the medium and small-sized businesses," says David Pinches, director of marketing at the Sage Group.

"Our approach is to grow our business through acquisition in different countries. We intend to continue running our three French acquisitions as individual companies, because the legislation and tax issues are so closely identified in the marketplace. But looking forward to development, our R&D teams around the world are already using each other's objects: so if we have 'tax return' facility for one country, we can adapt that elsewhere."

Dennis Keeling, author of the *Omni Report on Corporate Accounting Packages*, published last month, dismisses both OOP and client-server technology as "the computer industry solving its own problems". Mr Keeling, who is also part-time chairman of the Busi-

ness and Accounting Software Developers' Association, (Basda), with 150 members from Europe and South East Asia, quotes Basda's annual user-survey - "Interestingly, the topic of client-server came only 13th out of 16 requirements cited by users in the survey, and Windows only came tenth."

"Object-oriented software

didn't even get a look-in". The main requirements, he says, "are to do with flexibility, functionality, and user-friendliness. In researching, I've found that we've had very little improvement in productivity, and the industry is too pre-occupied with technology without productivity. Go back to end-users and these are the things they really want."

### Package for small companies

## Help for pioneers in electronic commerce

### Ways to reduce paperwork and speed-up transactions

Small companies are being offered help to become pioneers in electronic commerce by accounting software supplier Pegasus, which has 30-40 per cent of the market among companies with turnovers of up to £50m.

First, it has teamed up with Griffin Factors, part of Midland Bank, to launch the first factoring service to use electronic data interchange (EDI), writes John Kavanagh.

Firms can now send customer invoices directly from their Pegasus Capital accounting package to Griffin Factors using standard EDI messages. Finance can be arranged within hours to help cash flow; Griffin then chases the customers for payment. The facility eliminates the paper-handling and delays of sending the information by post.

Pegasus has also introduced a computer-telephony integration option on its Opera package: small companies can now enable their customers to order goods and check stock levels and their accounts through a touch-tone telephone.

This Multicall facility uses recorded spoken messages to guide callers through the process. In addition, Pegasus had



Pegasus chief executive, Jonathan Hubbard-Ford. "Small companies need to get into EDI."

added an EDI module to its Capital package - this follows the development of similar modules for its 'Opera' and 'Senior' products this year.

"Small firms need to get into EDI because their big customers are increasingly insisting that they trade electronically or lose the business," said Pegasus chief executive Jonathan Hubbard-Ford.

"We are at the 'small firm end' of the market and we aim to provide products that are easy to use and affordable, so we're helping to bring down the price of electronic trading."

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### Accounting software: package selection

# Plenty of pitfalls for the unwary buyer

There is not enough help available when selecting accounting software and organisations are missing some of the opportunities that technology has to offer, suggests Rod Newing.

Not every organisation is making the best use of the software it already operates and there are a great many factors to be considered when selecting new accounting software. Organisations do not always consider all the opportunities and they need help to identify a shortlist.

The accounting systems market is very fragmented with an estimated 600 accounting packages available in the UK alone. The potential purchaser needs as much help as possible in identifying the most suitable shortlist. The best UK source remains the *Software Report and Directory*, which even includes the names of Business and Accounting Software Developers' Association (Basda) members not represented at their event. It is a poor reflection on the established accreditation schemes that a young commercial product should be in this leading position.

The Institute of Chartered Accountants in England and Wales have been operating an accreditation scheme for some years on behalf of its members. With about 20 products being listed, the scheme has not yet attracted sufficient members. Some vendors of excellent packages have either not applied or have withdrawn from the scheme. It is now being reviewed and changes are planned.

The British Standards Institution operate a Kite Mark scheme for accounting software, but it is restricted to UK developers. Many organisations find that overseas products, which have been fully localised, are more suitable for their requirements.

Neither of these schemes has yet proved attractive to devel-

opers, who must expect to see benefits in the marketplace to justify the costs involved in joining either of these schemes.

Basda itself is being reluctantly dragged into setting up an accreditation scheme. After agreeing a VAT accounting standard with HM Customs and Excise, it has been forced by the lack of a third party to recruit its own assessors. Vendors, users and the government are all keen to be able to show that the agreed VAT standards have been properly implemented. If it is successful, it is reasonable to assume that the scheme will be extended to cover all areas of accounting.

### EDI facilities

Basda research has found that eighty per cent of all computer input data comes from a computer-generated source. This duplication of input effort is inefficient and gives rise to errors, which waste time in correction. Many vendors provide Electronic Data Interchange (EDI) facilities, including even lower-end products, such as Pegasus Capital.

However, Basda find that EDI is still only used by thirteen per cent of British organisations and only one third plan to implement it. This represents a massive increase in usage, but most organisations still do not plan to realise the benefits.

Whereas the Bankers' Automated Clearing Services (BACS) system provides electronic funds transfer, it does not provide electronic recording. Customers still have to send remittance advices and suppliers still have to manually record receipt.

It is only a matter of time

before on-line banking arrives. This will use EDI to provide both settlement and automatic recording of payments. It will also allow electronic bank reconciliations. There will be even greater efficiency when invoices are abolished and goods and services are paid for on delivery or completion at the amount stated in the purchase order. Known as self-billing, this is currently restricted to the largest companies. Nevertheless, EDI has enormous potential in bringing efficiency to accounting departments and its low uptake is disappointing. Organisations should consider the options available when they are choosing new accounting systems.

With the pace of change in commercial organisations it is important to select a package which will meet future as well as existing needs. This means that organisations should review their potential vendors' future product development plans. It is important to ensure that they will be exploiting the benefits of new technology and developing the type of functionality which a growing organisation will need.

Some vendors are squabbling over whether their research and development costs should be capitalised or written off. This is distracting attention to the level of research and development spend which they are investing in their products.

Obviously, some companies spend their development budgets more wisely than others, so it is not a guarantee of product quality, but it is a useful starting point. It is particularly important to check that the vendor has the financial resources to deliver its intended development plan.

Since the government eased restrictions on the audit of small companies, the arrival of some excellent entry-level accounting systems should not be used as an opportunity for small businesses to dispense with an accountant completely.

Any organisation should select a package in co-operation with its accountant, who will ensure that the system is appropriate for the client's business. However, accountants offer some very practical help to smaller businesses. They will ensure that a proper implementation plan is prepared to ensure a smooth transition to the new system and make sure that the correct chart of accounts is selected.

The accountant will check that the system is set up properly with the correct opening balances. They will also teach the client to enter transactions correctly, close off properly at the end of each month and generate an accurate VAT return, if registered. The accountant will then be able to close off the books at the end of the year and check that all transactions have been entered correctly during the period.

### Accuracy

Most of the vendors of entry-level accounting packages offer this type of advice in their manuals. Small companies must keep on the right side of HM Customs and Excise and the Inland Revenue by accounting for all transactions correctly and promptly.

Computerising a manual accounting system may not result in a reduction in the accountants annual fee, but most accountants will invest the time saved in account preparation in giving more advice and adding value to their clients business.

Organisations often live with the inefficiencies of their current accounting systems, failing to appreciate the benefits which modern accounting packages have to offer.

The reason for implementing a new system is usually the recruitment of a new company accountant. The newcomer is able to see the shortcomings and inefficiencies of the system and knows what benefits a new system can bring.

### Software solution in the freight industry

Report by Claire Gooding

## Express service across Europe

European fast freight specialist GB Express chose its accounts package with its clients in mind. Internal needs, even the accounting, were very much driven by the rapid response which is vital to its business.

Michael Pusey, managing director, explains: "We have a rapidly-expanding European-based business and we wanted to give our customers a high level of information to integrate with their own systems. We needed to invest in information systems that would give us value-added services for our customers."

Big name clients in the electronics, automotive, chemicals and cosmetics industries "expect a high level of information that relatively few computer systems can deliver quickly," says Mr Pusey.

The three elements of integration, internationalisation, and better management information drove the entire project for GB Express - "one priority was that we had to be able to steer this ship quickly. We needed the capability for management information and performance indicators - we also needed an international solution that could deal with the fiscal requirements of Spain, France, Italy and the UK."

### Experience

The company had already been through a 're-engineering' process for the FreightCare project, which overhauled the freight management systems at its operational core. This project, undertaken with Unisys, the computer and information management company, and now sold as a generic transport industry solution through value-added reseller Fenestra, had given GB Express valuable experience of 1990s technology. The Freightcare environ-

ment also dictated the framework for the new accounting system: a client-server architecture, which can use a centralised database on a wide area network, with Sybase as its database.

### Standards

GB Express set itself a number of standards to be met for the accounting system, including a graphical user interface on Windows, and an efficient, scalable relational database (Sybase) that would give both connectivity and upgradeability - "the client-server approach gave us the PC at the front end, a powerful client-server engine, and a large choice of readily available, affordable software options," says Mr Pusey.

"You have to be particularly careful about the architecture of the system, almost to the detriment of functionality. The cost today is so high that companies in this business sector with tight margins just cannot afford to re-engineer the same process in five years' time."

"If you get it wrong and you're on the wrong platform, you have to start from scratch. This investment is a matter of survival, and we're hoping this system will carry us forward for at least the next eight to ten years."

GBE had previously suffered a false start with a client-server accounting system which, although function-rich, proved impossible to deliver and support on international terms. Therefore, it looked very hard at the way packages reported in line with the fiscal plan comparable regulations (France), and full multi-currency facilities. GB Express finally picked Lawson because of an advantage over other packages - "they call it the

'drill-around' feature - a further enhancement to the idea of 'drill-down', which expands on the component parts of a particular figure."

With 'drill-around', you can also drill vertically and horizontally, so that you can make instant comparisons. That facility is all the more valuable because it can access other non-Lawson applications running on the Sybase database."

Lawson's French implemen-

tation was done by SG2, a software division of Société Générale, which meant that GBE could be confident of a high level of quality in the French version.

There are four offices using the Lawson system. As an international partner piloting Lawson's European presence, GB Express drove a hard bargain and was able to bring in the project under £200,000 in one year.

## I.T. IN BANKING AND FINANCE 1995/96

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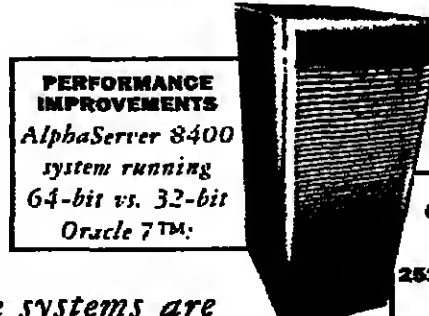
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AlphaServer 8400  
system running  
64-bit vs. 32-bit  
Oracle 7™:

Complex queries  
(5-way join):  
**251.9 TIMES FASTER**  
Ad hoc queries  
(3-way join):  
**95.4 TIMES FASTER**  
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\*Performance information, bench marked by Oracle Corporation, reflects 32-bit vs. 64-bit versions of Oracle 7 running on Digital's AlphaServer 8400 system with Digital UNIX. ©1995 Digital Equipment Corporation. Digital, the DIGITAL logo and AlphaServer are trademarks of Digital Equipment Corp. UNIX is a registered trademark in the United States and other countries, licensed exclusively through X/Open Company, Ltd. Digital UNIX V8.2 on Alpha is an X/Open UNIX32 branded product. Oracle 7 is a trademark of Oracle Corporation. All other products are trademarks or registered trademarks of their respective companies.



## Streamlined global accounting

Report by Claire Gooding

## Securities application

Report by Claire Gooding

## Quicker results, lower costs

How a leading pharmaceutical group introduced all three 'I's of accounting - integration, international operations, and better reporting information

Zeneca Pharmaceuticals could claim to be more 're-engineered' than most companies. It was created in 1993 from the de-merger of chemical giant ICI, and now comprises three businesses: Pharmaceuticals, Specialties and Agrochemicals. Its sales totalled £4.5bn in 1994, and it employs 30,000 people worldwide.

As one of the world's top 20 pharmaceutical companies, and well-established in providing prescription drugs for heart disease and cancer, Zeneca is in a fast-moving business and needs to be nimble. Its core businesses, however, needed streamlining - "we had a myriad of different systems in the accounts department, which we have now started to replace," explains Tony Pratt, manager of international business systems planning for Zeneca.

"Up to eight different systems would be called into

play between the issue of a purchase number and the logging of a final payment."

To offer more competitive pricing, the company needed to improve its efficiency and streamline its internal processes to reduce costs and overheads.

"We needed a system that would enable us to increase our internal efficiency by eliminating the duplication of data and effort and by reducing non-value-added tasks," he says. "Data should be entered once, held once, and available to all who need it."

Zeneca wanted to improve the flow of information throughout the entire business, so the choice of an 'open' accounting system was almost a foregone conclusion. Integration with other operations would enable it to control costs, and reduce overheads.

The system also had to be international, serving Zeneca's expanding network of operations in thirty or more locations.

"Greater co-ordination and consolidated reporting across all group companies would enable us to react more quickly as a global organisation," comments Mr Pratt.

Zeneca was convinced by the ability of SAP's R/3 suite to

handle different currencies and languages, and mould to very specific requirements for reporting. During 1994, the company went 'live' with various combinations of the R/3 modules for finance and accounting, sales and distribution and logistics in the UK, Ireland, the Netherlands, and Sweden.

Further projects are nearing completion in Belgium, Canada and Germany. Eventually there will be 500 or more SAP users in Zeneca worldwide by the year 2000, with each site

## Consistent and timely data for management brings big advantages

making its own local choice of hardware and implementation partner. Sharing information across different departments has already shown benefits. Historically, accounts receivables had been a corporate function with the receipt of all payments being handled centrally for all three businesses within the group - "this reduced administrative costs,

but it was not an effective way of keeping on top of debt collection because the sales and distribution functions were disconnected from the accounting functions," explains Mr Pratt.

The accounts department has also streamlined its operations - "with the real-time reporting capabilities of R/3, the end of month results will be available sooner, and accountants can focus on using the data rather than compiling it".

The R/3 implementation has integrated the accounts receivable function into the pharmaceuticals business so that sales teams have direct access to up-to-date customer information, including the number of invoices raised and payments received. This, according to Mr Pratt, makes business managers in the sales and marketing areas much more cash-conscious - "there has been a dramatic reduction in the number of debtor days," he says.

The management team at Zeneca now has timely, consistent management information. It is available as a by-product of the business operation, giving quicker consolidation of group results, tighter cost-control and more effective management of the supply chain on a global basis.

## Nomura's leap to freedom

Three years ago, a variety of accounting systems on disparate hardware platforms made life difficult for accountants at Nomura International

One of the largest securities houses in the world, Nomura has a network of 29 offices in 26 countries and offers a diverse spread of services including dealing, brokering, underwriting and distribution of securities.

Subsidiaries and affiliates deal with research and management of investments, and the financing of real estate and leases.

This large spread of activities made accounting and consolidation difficult to handle. The existing systems were outdated from the point of view of the European headquarters in London, which itself employs 1,000 people in the full range of investment banking services.

Worse, they were something of a strait-jacket, having been derived from Tokyo-originated head office systems with little adaptation to local conditions.

Consultants recommended that Nomura 'bit the bullet' and overhaul its technology

across the board - "there was a general recognition that we must enhance our systems to remain competitive over the next five to ten years," says Mr Ian Buchanan, director of information systems for Nomura International.

"Basically, we looked at the strategy and what was required in terms of our business objectives and decided the right technology was large-scale object-oriented development. One part of that was the accounting systems."

Nomura recruited an entire ready-made team from a rival bank, CS First Boston, which had already been through the same re-engineering loop.

The approach was to mix bespoke developments for middle office and trading, while using packages for the back-office, with Sun Microsystems equipment seen as "the way forward for the trading floor and the back office functions," according to Mr Buchanan.

"We chose the Dodge software for regulatory reporting and management accounting," he explains.

"Effectively, that crosses the boundaries between front and back office. One of the things we are attempting to do is make sure that key financial information is computed only once, in only one part of the

system. That means making sure that the information comes direct from the dealers: it sounds simple, but it's difficult to achieve."

That level of integrity demands that the numbers are

re-keying or reconciling, as is common in the securities industry. The Dodge software can then be used for analysis.

The system has in many different national regulatory requirements, and different consolidation techniques.

"Many systems really are out up to the multi-currency and multi-company requirements," observes Mr Buchanan. "Dodge's previous experience at Paribas helped, but the other key reason we chose them was the volume of processing required. We process hundreds of thousands of ledger transactions daily, and that's often lacking in package-based systems, especially in the Unix-based client-server arena."

Wider focus

The London office is piloting the accounting system for roll out across Europe, and the City system is being adapted for New York and the Far East in the more distant future.

"In this business, you can find yourself supporting global businesses without global systems, although your support responsibilities turn out to be global in any case," remarks Mr Buchanan. "That's why, although our focus is in London initially, we looked for a system that could support separate legal operating entities - multi-locality and multi-company."

Nomura is trying to make sure that the product accountants spend their time productively, analysing rather than

## FT-IT Review in 1996

## Key themes for the coming year

In addition to our regular FT-IT Reviews in 1996, we shall be publishing two FT-IT Magazines:

- An A-Z of the Internet.
- The Semiconductor Industry.

Listed below is a provisional month-by-month outline of the main sections for the FT-IT Review in 1996 - there are no issues in January and August:

## February 7

- Focus: IT in Government.
- Software: Information Flow across the Enterprise.
- IT Directions: Network-Centric Computing.
- Outsourcing: Upheavals in relationships across the IT industry.

## March 6

- Focus: Converging Technologies in IT and Communications.
- Directions: Network Management.
- Software: Help Desks.

## April 3

- Focus: Desktop Computing.
- IT Directions: Video-conferencing.
- Software: Statistics and Modelling Packages.

## May 1

- Focus: Mobile Computing.
- IT Directions: Computer-Telephony Integration.
- Software: Voice Recognition and Translation.

## June 5

- Focus: Computers in Manufacturing.
- IT Directions: ATM and Fast-Switching: the impact on business.
- Software: Risk Management.

## July 3

- Focus: Networking.
- IT Directions: Multimedia in Entertainment and Education.
- Software: Internet Software Tools.

## September 4

- Focus: Computers in Finance.
- IT Directions: Systems Security and Support.
- Software: Accounting Packages.

## October 2

- Focus: Computers in Retailing.
- IT Directions: Business

applications for Object-Oriented Technology.

## November 6

- Focus: Technology in the Office.
- IT Directions: Advances in Document Management.
- Software: Sales and marketing systems.

## December 6

- Focus: IT in the Home: Home Office Computing and Communications.
- IT Directions: Computer-aided design.

● Copies of detailed editorial synopses for the FT-IT Review are generally available six weeks in advance of each issue. For details, please contact:

● In London:  
Simon Larter,  
FT Advertising Department:  
telephone (+44) 0171 873 4129  
or fax: (+44) 0171 873 3062

● In the US:  
New York: Gavin Bishop,  
telephone (212) 745 1342  
San Francisco: Nick Maylie, tel. (415) 637 9775

## ● Back Numbers:

Back issues of the FT, including the FT-IT Reviews, are available in London at £2.00 each, although certain issues for 1995 have sold out. For details, tel. 0171 873 3324.

● For details of all forthcoming FT Surveys, UK callers may telephone: 0181 446100 (calls charged at 36p per minute cheap rate and 48p per minute at all other times. Overseas callers, ring UK on 171202 2001, or write to the address below.

● FT-IT Index for 1995: In the February 1996 issue we shall publish a list of themes covered in the Review since March 1995. This list is also available now by writing to the FT Surveys Secretary, at the address below.

● Editorial background information can be sent by post to arrive a month before publication, addressed to:

Commissioning Editor,  
FT-IT Review,  
Financial Times  
Number One  
Southwark Bridge,  
London SE1 9HL.



The power of Notes is the power of collective thinking.

Lotus

Working Together

Small text at the bottom of the Lotus advertisement, likely a disclaimer or legal notice.

Handwritten Arabic text: ٥٥١ من الاصل



## LOTUS NOTES

Lotus  
Business  
Partners:Applications  
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## Reselling:

**1 Altis Consulting Ltd**  
Partners House, Crown Lane, Theale,  
Reading RG7 5BQ  
Tel: 01734 302884 Fax: 01734 302885

**Product Description**  
ULTA-MIS provides:  
• An innovative process-oriented solution for the effective automation of your Quality system  
• Strict control over Problem Management, Auditing and Document Control  
• Fully integrated communications and problem resolution  
• A system tailored and configured to your exact needs  
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**Hardware**  
PCs, Mac and UNIX Workstations

**Applications**  
General purpose process management, ISO 9000, TQM, etc.

**ALTIS**  
Consulting Ltd

**2 BSG Consulting**  
BSG House, 225-226 City Road,  
London EC1M 2TT  
Tel: 0171 680 6888 Fax: 0171 350 8500

**Company Description**  
BSG Consulting is an independent division of Business Systems Group providing a rapid, cost-effective application development capability. BSG Consulting draws upon the breadth and depth of expertise offered by the rest of the Group, including autonomous value added fulfilment, training, support services, Networking & Systems Integration and Infrastructure & Cabling capabilities.

**Application**  
Liggett's Notebook is a Lotus Notes based application that enables teams of Lawyers to build an on-line case notebook, plan strategy, share ideas and organise information.

**BSG**

**3 Computasoft**  
150 Strand, London WC2R 1JA  
Tel: +44 (0) 171 579 5850  
Fax: +44 (0) 171 579 7505

**Company Description**  
Computasoft, based in London with offices in London, New York and Hong Kong, has built an enviable reputation providing software solutions and services to the financial markets and blue chip companies across the Globe.

Working closely with our customers to provide innovative solutions through rapid development of Notes applications, we can deliver real return on investment and competitive advantage.

**Coverage**  
United Kingdom

**Applications**  
Sales Force Automation, Help Desk, Project Tracking

**Computasoft**

**4 Corporate Computers, 1995 Centre**  
Rockwell House, 100 Middlesex Street,  
London E1 7AD  
Tel: 0171 377 0474 Fax: 0171 377 1730

**Company Description**  
Workgroup Solutions have substantial proven success in the analysis, design & implementation of Lotus Notes systems, focusing on delivery of business solutions. Typical applications include:  
Project Management, Human Resources  
Client Tracking, Workflow Process  
Financial Audit, Customer Credit Management  
MIS Support Desk

**Geographical Coverage**  
Total European presence,  
UK covered through 4 offices

**Corporate Computers**  
Info Protect Europe

**5 Ginet Management Consultants**  
Oakfield House, Oakfield Grove,  
Clifton, Bristol BS8 2SN  
Tel: 0117 923 8480 Fax: 0117 923 8453

**Company Description**  
Ginet is a firm of management consultants which specialises in building solutions to meet specific business problems using Lotus Notes. We offer a full range of services from initial systems audits through to the definition, design and implementation of total solutions.

**Geography**  
UK & Overseas

**Applications**  
ISO 9000, Client Management

**G**

**6 Groupware Incorporated**  
20 Watlington Gardens, East Sheen,  
London SW14 8DX  
Tel: 0181 2557850 Fax: 0181 2557851

**Company Description**  
Groupware Incorporated specialises in helping customers implement near shrink-wrapped Lotus Notes applications. GWI offers Groupware Office, a suite of Lotus Notes applications with a consistent look and feel. Included in the suite of ten are our flagship applications: Help Desk, Sales Force Automation, Project Tracking and a Document routing and publishing application.

Also sold separately.

GWI also offers a complete human resources package.

**7 Hadleigh Marshall Ltd**  
Hilsey Court, Church Way, Bodley  
Oxford, England OX2 9JA  
Tel: 01865 204468 Fax: 01865 204477

**Company Description**  
Hadleigh Marshall specialises in the management of documentation within and between organisations. Hadleigh Marshall's 'Power' product utilises the full potential of the international groupware standard in the business of managing documentation, by re-engineering the document management process in Lotus Notes. 'Power' is Lotus Notes Templates that is delivered as a shrink wrapped product, and represents the culmination of many years of research and development in the field of the document lifecycle and its management. Hadleigh Marshall remains committed to a long term development programme taking advantage of new tools and techniques for example, P3 to continually deliver a business benefit edge.

For information regarding the products, benefits, capability and cost call or fax new.

**8 Harley West Ltd**  
Salford House, Circus Place, London EC2M 3QQ  
Tel: 0171 417 8070 Fax: 0171 814 9129  
also at:  
268-270 Regent Street, London W1R 5DA  
Tel: 0171 489 7822 Fax: 0171 434 1711  
http://www.harleywest.co.uk

**Company Description**  
"Harley West are dedicated to providing Technical Training utilising the most effective and innovative teaching methods."

As a leading Lotus Authorised Education Centre in the UK, we offer comprehensive training and consultancy on Lotus Notes including the soon to be launched Lotus Notes Release 4. Harley West are also recognised by Novell and Compaq as a premier provider of quality technical training, leading to certification qualifications.

Should you require any further information please do not hesitate to contact me at our Technical Centre on 0171 417 0060

**HARLEY WEST**

**9 InfoSys Limited**  
The Technical Centre,  
30 Finsbury Circus,  
London EC2M 7DT

**Company Description**  
InfoSys Ltd (a Lotus Premium Partner), have developed our Newsworld Systems (based on Notes V4) and have revolutionised the way that stories and audio clips are shared across the Group.

The team at InfoSys have researched and developed what is a comprehensive solution to the process of writing and producing the local News - they are the Notes 4 expert!

**InfoSys**

**10 InfoSys Limited**  
Gloucester House, County Park,  
Shrewsbury Road, Swindon, Wiltshire  
Tel: 01793 513844 Fax: 01793 542362  
41 Old Street, London EC1V 9HX  
Tel: 0171 3368806

**Quote from: Mervyn Marshall - GWR Group Systems Manager**

**Company Description**  
InfoSys Ltd (a Lotus Premium Partner), have developed our Newsworld Systems (based on Notes V4) and have revolutionised the way that stories and audio clips are shared across the Group.

The team at InfoSys have researched and developed what is a comprehensive solution to the process of writing and producing the local News - they are the Notes 4 expert!

**InfoSys**

**11 Ives & Company Ltd**  
4/5 Avon Court, Emme Business Park,  
Huntingdon, Cambs PE18 5XD, UK  
Tel: 01480 433918  
Internet: SENDINFO@IVESCO.CO.UK

**Company Description**  
Ives & Company develops business-critical Lotus Notes solutions for some of the world's leading companies: Compaq, Grand Metropolitan, Philips, Baxend, Royal Mail and Wells. Unique TeamStudio "business process objects" enable more robust, better integrated Notes applications.

**Hardware/compatibility**  
All Notes platforms, inc. Windows 3.1, 95, NT, OS/2, Mac, UNIX.

**Geographical coverage**  
Europe (Huntingdon/Cambridge) and North America (Boston)

**Applications**  
TeamStudio, SalesStudio, Promiser

Based on std. day rates & runtimes.

**Ives & Company**

**12 Knowledge Insight**  
Plymouth Court, Falmouth Road,  
Purley SW15 1AZ  
Tel: 0181 780 5322 Fax: 0181 7805533  
Internet: SENDINFO@KINCO.CO.UK

**Company Description**  
Knowledge Insight is one of the leading providers of consultancy, implementation and systems integration services for Lotus Notes to integrate data across an entire organisation based on Lotus Notes.

**Knowledge Insight are experts in:**

- Architecture and Planning
- Large scale Lotus Notes deployment
- Migration of existing applications
- Lotus Notes data integration
- Classroom and CBT training.

**Knowledge Insight**

**13 LeSoftCo**  
Balfour Common, Great Missenden,  
Buckinghamshire HP18 9LQ  
Tel: 01494 837365

**Company Description**  
LeSoftCo: Insightful Guidance and Practical Assistance to Teams Working to Improve the Effectiveness of Business Processes

- Process Thinking, Quality Analysis and Teamworking methodologies
- Many Industries and Business functions
- LeSoftCo's Powerful yet Easy-to-use Lotus Notes-based Toolkits
- Sales & Campaign Management
- Creative Thinking
- New Product Adoption
- Process & Quality Analysis
- Information Systems Strategic Planning

**Cost**  
Server-based Pricing, includes Mobile Users

**LeSoftCo**

**14 Lloyd McKenzie & Partners Ltd**  
The Old Town Hall, 105 High Street,  
Buckingham, Bucks HP8 1AN  
Tel: 01293 773258 Fax: 01293 897292

**Company Description**  
Notes is the de-facto 'Groupware' product for companies of all sizes. Lloyd McKenzie assists clients with all aspects of Notes deployment, from developing strategies for Process Innovation, through 'Enterprise Deployment' to achieving real 'Collaborative Working'. As Lotus Premium Partners we deliver Consultancy, Support, Training and Notes Application Development. Call us to discuss your needs with one of our experienced team members.

**Lloyd McKenzie & Partners**

**15 Microtransfer Limited**  
Park Farm, Kirtlington, Oxfordshire, OX5 3JD  
Tel: +44 (0) 1869 350340  
Fax: +44 (0) 1869 350069

**Company Description**  
Microtransfer is an independent UK based consultancy and systems integrator which has extensive experience of design, development and management of distributed systems.

We offer a range of services from conception through implementation to support. These include:

- Managing the migration to distributed systems
- Designing and developing distributed applications
- Managing and supporting distributed networks
- Providing global systems support

**Geographical Coverage**  
World-wide

**Microtransfer**

**16 NIP Ltd**  
Meriton House, High Street, Crowborough,  
Berkshire RG45 7AY  
Tel: 01344 778783  
Fax: 01344 778780  
Internet: info@nip.co.uk

**Company Description**  
Lotus Notes and the Internet are an awesome combination. Now you can harness the knowledge and creativity of your key resources while maximising the return on your information investments.

At NIP, we build software applications that blend Notes and the Internet, enabling you to co-ordinate tasks and process; support the development of collaborative teams, and communicate key messages throughout your organisation.

**Applications**  
Internet integration; managing business intelligence; enquiry handling; knowledgebases; database publishing; intelligent agents.

**NIP**

**17 nexUS**  
Marlborough House, 82 Park Street,  
Cambridge, Surrey, GU15 3NY  
Tel: 01276 888800 Fax: 01276 888801

**Company Description**  
nexUS builds vertical and cross industry applications using Lotus Notes and specialises in Insurance & Legal areas.

**CaseNotes** is a case management system for the legal profession that tracks the status of all types of cases. In addition to electronic document storage, the product provides scheduling of critical dates of a case, highlighting overdue situations. CaseNotes can be linked to all the common desktop word processing packages and provides on-line and printed status reporting. Since it is written Notes, CaseNotes can support professionals away from the office.

**CaseNotes**

**18 Office Academy Limited**  
Maxwell Road, Stevenage SG1 2EP  
Tel: 01438 747877 Fax: 01438 360285  
E-Mail: OAG@OAG-Group.com

**Company Description**  
A comprehensive Notes Solution Provider. Consultancy including workflow analysis and system specification. Development and Implementation of the optimum system to meet the requirement. Training scheduled or tailored for users, administrators and developers.

**Geographic Coverage**  
International

**OFFICE ACADEMY LIMITED**

**19 P & P Corporate Systems Ltd**  
Todd Hall Road, Haslingden,  
Rossendale Lancashire BB4 5HU  
Tel: 01706 217744 Fax: 01706 211401

**Company Description**  
P & P is a leading IT Group with offices throughout the UK & in Europe. It supplies computer hardware, software & communication products along with a range of specialist consultancy, implementation & support services. The company employs over 1,300 people, over half of whom are dedicated to providing IT services.

**P & P Lotus**  
P & P is a specialist in providing complete Lotus solutions encompassing consultancy, system design, infrastructure implementation, application development & training. P & P is a Lotus Authorised Business Partner, Notes Education & Training Centre.

**P & P**

**20 Prince plc**  
220-243 Shepherds Bush Road London W6 7AN  
City: 150 Minors London EC3N 1LS  
Tel: 0181 237 7220 Fax: 0181 741 0040

**Company Description**  
Prince plc is one of the UK's leading Lotus Notes service providers and one of only a few companies to offer an integrated combination of technical support, development and training. Our services include:

- Lotus Notes System Administration levels I & II
- Lotus Notes Application Development levels I & II
- Lotus Professional Certification Programme
- Company Tailored Courses and Migration Specialists
- Lotus Notes Development and Consultancy
- Lotus Notes Help Desk Support
- Systems Integration
- Installation and Configuration

**PRINCE**

**21 Revelation Technologies**  
270 Upper 4th Street,  
Central Milton Keynes MK9 1DP  
Tel: +44 (0) 1908 233255  
Fax: +44 (0) 1908 233220

**Revelation Technologies** provides the only suite of application development tools that provide native access to the rich, unstructured data of Lotus Notes. OpenNotes for Workgroup gives users network-wide multi-user capabilities, and an active extensible repository that facilitates collaborative development; VIP is a visual programming tool for single developers who need to create applications quickly; and Report Designer enables both novice and expert users alike to create quick but sophisticated reports.

**Revelation Technologies**

**22 Synthetics**  
Church House, 18-20 Church Street,  
Staines, Middlesex, TW18 4EP  
Tel: 01784 885885 Fax: 01784 885886  
Contact: Zoe Hinchcliffe Marketing

**Company Description**  
Synthetics is an experienced systems integrator providing innovative and cost-effective business solutions and as such combines technical expertise with an understanding of business processes. With extensive experience providing client/server solutions, Synthetics has developed strategic applications for sales and marketing, financial services and manufacturing to include Sales Force Automation, Retail Product Catalogue and Project Tracking.

**Synthetics**

**23 TCS**  
38 South Western Road,  
St Margarets, Twickenham TW1 1LQ  
Tel: 0181 882 4281

**Company Description**  
We work with organisations to bring about business transformation through people. We customise our Lotus Notes-based product TOTAL PERFORMANCE MANAGEMENT - Tpm - to support continuous improvement.

Tpm integrates the disparate parts of performance management - mission statement, corporate aims, performance indicators, individual work and development objectives, appraisals, personal development plans and competency profiles - into a coherent, distributed system. The result, as our clients point out, is a "system for business excellence".

Contact: Dr Carl Thomas

**TCS**

**24 Triangle**  
Triangle House, 10 Ringwood Road,  
Longham, Dorset BH22 9BP  
Tel: 01202 596000 Fax: 01202 596001

**Company Description**  
Triangle's main focus is AS/400 and Lotus Notes integration and ISO 9000 Lotus Notes Solutions. Having achieved the highest ROI on a Notes implementation ever recorded (in excess of 1600%) Triangle has gone on to transfer its skills to numerous clients, with over 3000 Users of TriangleQA and a large number of AS/400 integration projects across the UK, in addition to this Triangle has in excess of 70 Notes applications that can be taken from the shelf and adapted to your requirements.

**Applications**  
TriangleQA - A well proven approach to attaining and maintaining ISO 9000 with considerable financial savings and dramatic business improvement. Data Pump - Provides bi-directional data exchange between AS/400 and Lotus Notes Databases.

**TRIANGLE**

**26 Unipower**  
3 Mansfield Road, London NW3 2JD  
Tel: +44 (0) 171 822 6623  
Fax: +44 (0) 171 267 7867

**Company Description**  
Unipower has the best in Notes consultancy and development. We bring you 5 years of experience developing applications for both small groups and global networks of up to 20,000 users. Turn to us for rapid applications development, expert infrastructure advice and complete implementation services. We can also help you with integrated solutions using Oracle, Multimedia and the Internet.

**Geographical Coverage**  
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**Applications**  
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**Unipower**

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8-9 Harley West Training	22 Synthetics Ltd.	
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**27 Lotus Business Partners**

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**Call a Lotus Business Partner and the help you need is only a phone call away.**

**Lotus**  
**BUSINESS**  
**PARTNER**



# SOFTWARE & IT SERVICES MARKET Accounting, Finance & Business Systems

## 1 Accounting Logistics & Costing

## 2-4 Accounting

## 5 Accounting & Administration Software

## 6-7 Business Management Systems

## 8 Business Systems

## 9 Distribution Solutions

## 10 Finance Solutions

## 11-13 Accounting Software

## 14 Advanced client/server Accounting Solution

## 15 Business Solutions

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## 19 Client Accounting and Distribution Software

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## 22 European Accounting & Business Systems

## 23-24 Financial & Accounting

## 25 Financial Accounting & Management Information Systems

## 26 Financial Accounting Software

## 27 Client/Server Financial & Business Management Software

## 28 Financial Management

## 29 Financial Management

## 30 Financial Software

## 31 Financial Software (Windows)

### 1 De Facto

Fresno, 5 The Rutherford Centre  
Dunlop Road, Ipswich IP2 0HG  
Tel: 01473 230202 Fax: 01473 230247

**Product Description**  
Multi-user DE FACTO offers unprecedented flexibility in 11 integrated modules. Providing Multi-currency, Multi-company, Multiple open periods & years, Commitment accounting, Multi-warehouse, Multi-Language, Multiple units of measure & pricing, Serial & Lot No. tracking, Contract & Job Costing.

**Hardware**  
Cross platform, Windows, Windows 95, Windows NT, Mac OS.

**Coverage**  
Worldwide

**Applications**  
Accounting, Logistics & Costing

### 2 Exchequer Software Ltd.

1 West Hill Place,  
Commercial Road, Bournemouth BH2 5NX  
Tel: 01202 298008 Fax: 01202 298001

**Company Description**  
Exchequer is a highly innovative accounting system. It is the pioneer of features such as "Drift-Down", "Non-Destructive Periods-ends" and "Hot Keys". It also has excellent Multi-Currency features. In a review the FT quoted Exchequer as "an astonishing package... taking accounting s/w into a new era. User includes M&S, Oxford Univ Press, Hasbro, BASF, etc. NOW for details.

**Hardware**  
PC, Novell & PC LANs.

**Geographical Coverage**  
Worldwide

**Applications**  
S/L, P/L, N/L, C/B, SOR, POP, Stock, BOM, R/W, Import.

### 3 Systems Union Limited

1 Hammersmith Broadway  
London W6 8DL  
Tel: 0171 312 4545 Fax: 0171 312 4548

**Company Description**  
SunSystems is the complete, international, client/server business solution from Systems Union. Installed by over 10,000 companies in over 100 countries, its global application is enhanced by: full multi-company and multi-currency processing and availability in 22 languages.

**Hardware**  
PC-Lans, Unix, Vax, NT, Windows 3, Windows 95.

**Applications**  
SunAccount, SunBusiness

**Cost**  
On application.

### 4 Kewill-Omicron

Case House, 80-85 High Street,  
Waltham on Thames KT12 2GS  
Tel: 01832 248328 Fax: 01832 221662

**Product Description**  
DYNAMICS is a multi national, multi currency accounting system designed specifically for Windows. It has a huge range of features including drill down enquiry, background processing, unlimited budgets and history on lines, DOE support and a WYSIWYG Report Writer. The Modifier allows all screens and menus to be tailored. A linking Toolkit allows integration with other applications.

**Hardware**  
Windows, Networks, Macintosh, Win 95, Client Server, NT.

**Geographical Coverage**  
Dynamics is available in the UK, USA and worldwide.

**Cost**  
£25-£50k

### 5 Lakeview Computer plc

Banks House, Banks Lane  
Bexleyheath, Kent DA6 7BH  
Tel: 0181 303329 Fax: 0181 3036089

**Product Description**  
Lakeview LM software provides integrated financial accounting, order processing, sales analysis and stock control. LM is supplied and supported directly by Lakeview, usually as part of a complete system, with full after-sales support services. LM is a UK product, winning critical acclaim as being "a generation ahead" of the international competition.

**Hardware**  
Runs on 80% of all current computer systems

**Geographical Coverage**  
UK, Europe, USA

**Applications**  
Distribution, manufacturing, wholesalers, service industries, plus many specialised applications

**Cost**  
5 user software-only from £5,850

### 6 Navision UK Ltd

5 Petworth Road  
London N12 9HE  
Tel: 0181 4461458 Fax: 0181 4466302

**Company Description**  
NAVISON UK Ltd develops and markets the NAVISON range of object oriented, client-server accounting and business management software. The NAVISON product was one of the top ten hottest products at last year's COMDEX and NAVISON Financials is the first accounting solution to be "Designed for Windows 95". NAVISON have a reputation for leading edge development that delivers practical solutions to companies accounting requirements.

**Hardware**  
Unix, DOS, OS/2, Windows 3.1x, NT, 95.

**Coverage**  
Over 25,000 installations worldwide.

### 7 Scala International

Scala House, 23-24 Bourne Court  
Woodford Green, Essex IG8 8HD  
Tel: 0181 550 1994 Fax: 0181 551 7429

**Product Description**  
The International Scala Group develops and markets Scala, Accountancy Age's Accounting software of the year 1994, which is a fully multi-lingual, multi-currency business management and accounting system. Supported from 64 offices worldwide, in 30 different languages, Scala is extremely flexible offering specific parameterisation and powerful multi-dimensional capabilities.

**Hardware**  
IBM compatible PCs, Networks, All Unix systems.

**Geographical Coverage**  
Worldwide - 12,000 installations in 92 countries.

**Applications**  
Scala Financials, Logistics, Business and Manufacturing, available in DOS, Windows and Unix Versions.

**Cost**  
Price on application

### 8 Access Accounting Ltd

The Old School, Stratford St Mary  
Colchester, Essex CO7 6LZ  
Tel: 01206 322575 Fax: 01206 322956

**Company Description**  
Don't invest in an accounts system until you've had a demonstration of ACCESS ACCOUNTS - the most fully featured software for a graphical user interface. Three versions available to suit any size of organisation, including client/server for enterprise-wide accounting. Proven by over 5,000 UK companies today. Full information pack available.

**Hardware**  
Windows, Macintosh, Novell, Unix, Oracle servers and Windows NT

**Geographical Coverage**  
65 consultancy-style specialist centres nationwide

**Applications**  
Ledgers, stock, costing, payroll

**Cost**  
Client/Server version £7,500-85,000  
Network version £ 995-10,000  
Single user version £ 300-1,000

### 9 Strategix Solutions

TIS Software Limited, Regatta Place  
Marlow Road, Bourne End, Bucks SL8 5TD  
Tel: 01628 532565 Fax: 01628 532514

**Company Description**  
STRATEGIX is an integrated suite of business software applications developed by the MISYS Group of Companies. At Software '95 January, we will be giving three demonstrations in Room P4: STRATEGIX-An overview of key business functions. STRATEGIX-A British solution for European business. STRATEGIX & COGNOS-Business intelligence for decision makers.

**Hardware**  
UNIX Server with optional Windows GUI Client

**Geographical Coverage**  
UK, Western Europe

**Applications**  
Fully integrated Accounting, Distribution, Assembly Manufacturing, Project Accounting and Service Management solutions.

Please visit us at Software in accounting and Finance '95 Stand 592, Demonstration Room: P4

### 10 JBA

Needles House, Birmingham Road  
Studdley, Warwickshire CV8 7AS  
Tel: 01527 496444 Fax: 01527 496230

**Company Description**  
JBA System 21 Financials streamlines the processes of exception analysis, performance measurement, budgeting and forecasting. It also guides users through the maze of legal, accounting and taxation differences of the global marketplace. System 21 contains modules to cover every area of an organisation's financial operations, both now and into the 21st Century.

**Hardware**  
Multi platform

**Coverage**  
Worldwide

**Applications**  
Accounting, Customer Service, Distribution and Production, with specific software for the Drinks, Apparel, Plant, Tool and Equipment hire industries.

### 11 Management Information Centre Ltd

St Andrews, The Belfry  
Colindale Way, Watford, Herts WD2 4WH  
Tel: 01823 422600 Fax: 01923 422636

**Product Description**  
VIZIOPIA is the only true Windows™ Accounts production suite. The system boasts basic cash book/terminal ledger data entry, bought ledger, sales ledger, invoicing, management reporting and statutory accounts. Options are available for group accounts and audit journal tracking. Regular updates ensure total compliance.

**Hardware**  
Minimum system requirements 8Mb RAM, 486dx, Windows v3.x or later

**Geographical Coverage**  
Worldwide

**Applications**  
Professional accountants and clients

### 12 Software Architects Int'l Ltd

Enterprise House  
The National Technological Park, Limerick  
Tel: 00353 338118 x4052

**Company Description**  
Why do some of the world largest corporations use Cashbook? Cashbook, Cash & Treasury Management provides key business solutions such as Automatic Electronic Bank Reconciliation and Treasury Forecasting. CASHBOOK complies Corporate accounting systems which typically lack Cash management functionality. CASHBOOK fully integrates with all ledgers.

**Hardware**  
AS/400 & Client Server

**Geographical Coverage**  
Global

**Applications**  
GPCSM, Software 2000™, Hoskyns Financials™

### 13 Genesys Management Systems Ltd

Glebe Barn, Cuxham Road  
Watlington, Oxon OX4 5NG  
Tel: 01491 614466 Fax: 01491 614300

**Product Description**  
The Genesys Business System is not just another accounting package but is a complete business solution covering full accounts modules with order processing - sales & marketing, all linked to word processing and office automation software. Developed under Unix with a Windows 95 front-end, the software will run on almost any hardware platform. A mid range system at an affordable price. Full consultancy, training, tailoring and support from a team of specialists. Also software for plant and tool hire industry.

**Hardware**  
Any UNIX based system

**Geographical Coverage**  
Full UK & European coverage

**Applications**  
S/L, P/L, N/L, SOR, POP, Stock, BOM, R/Writer

Price range for S/W £10k+

### 14 Calidus

Elbury Gate, 23 Lower Belgrave Street  
London SW1W 0NW  
Tel: 0171 7302277 Fax: 0171 2599870

**Product Description**  
obs financials is a powerful client/server accounting solution available on a highly cost-effective platform which offers ease of use and low cost of ownership. It combines an open technology environment with business intelligence tools and the latest relational database technology.

**Hardware**  
PC Windows 3.11 & 95, Client, VAX, Unix (Server)

**Coverage**  
UK

**Applications**  
obs financials and obs distribution

### 15 Arbor Software Ltd

Aburn Court, Apple Plaza  
Reading RG1 1AX  
Tel: 01734 566749 Fax: 01734 560380

**Company Description**  
Esbases cut days from forecasting and budgeting cycles, but more importantly helps us to control expenses. We have actionable data. We're improving management accountability which translates directly to greater control over the business.

**Hardware**  
PC Windows 3.11 & 95, Client, VAX, Unix (Server)

**Coverage**  
UK

**Applications**  
obs financials and obs distribution

### 16 Britannia Software Pic

Astra House, Arklow Road, London SE14 6EB  
Tel: 0181 6949494 Fax: 0181 6914581  
E-Mail: mjphson@britsoft.co.uk

**Company Description**  
For over a decade Britannia has been designing, developing and implementing the UK's leading Asset and Property Management Solutions. With over 1300 customers, 50 of whom are in the TIMES TOP 100, Britannia is the de facto standard. Our flexible specialist approach to design gives our customers an individual tailored solution. With Britannia there is no compromise.

**Hardware**  
Open Systems, AS/400, Unix, PC, DEC-VAX  
Links to any General Ledger

**Geographical Coverage**  
67 Countries inc. Germany, Belgium, Hungary & South Africa

**Applications**  
Asset & Property Management, Facilities & Plant Management, Bar-Coding & Asset Tracking

POA

### 17 Movex (UK) Limited

Savile House, Savile Road,  
Eland, Yorks YO1 5NU  
Tel: 01422 577611 Fax: 01422 310109

**Company Description**  
Integration, flexibility, ongoing and proven development path, real commitment to high quality international service and support are just some of the reasons why over 1100 major companies have chosen MOVEX software - often to support BPR and RightSizing. Over 80% of MOVEX's sales are to pan-European companies, producing a turnover of £74 million per annum.

**Hardware**  
IBM AS/400, GUI Includes Windows and OS/2.  
Price on application, includes user input to development.

**Geographical Coverage**  
48 Offices worldwide.

**Applications**  
Concurrent transactions into 17 languages

**Applications**  
Truly integrated manufacturing, financial and distribution software. Strategy includes OOT and Client/Server.

### 18 MR-Data Management Group Plc

47 Baswick Street,  
London EC1V 3PS  
Tel: 0171 250 3375 Fax: 0171 250 1873

**Company Description**  
MR-Data Management Group provides comprehensive facilities management and outsourcing for data management requirements. Services include: image and data capture, electronic printing, secure off-site data storage and market leading Memex software.

**Hardware**  
All major systems

**Geographical Coverage**  
UK, USA, Middle East

**Applications**  
All image and computer data.

### 19 Lawson Software

Capital Place, 120 Bath Road  
Hayes, Middlesex UB3 5AN  
Tel: 0181 754 9470 Fax: 0181 754 7786

**Company Description**  
Lawson Software offers robust, client/server applications with proven business benefits for companies worldwide. Lawson has 20 years of experience in developing business applications, with high-end, corporate functionality. Combining that experience with a unique underlying development technology strategy, Lawson offers future proof solutions - offering both high-end functionality and openness and integration to the newest technologies.

**Hardware**  
AS/400, RS6000, HP9000, DEC Alpha, Sun, Sequant, U6000

**Applications**  
Accounting, Distribution Management, Materials Management, Lawson Tools and Open Enterprise Desktop.

**Coverage**  
FT 2000

### 20 Time (Open Systems) Ltd

Montague Place, Quayside,  
Chatham Maritime, Kent ME4 4QU  
Tel: 01634 895000 Fax: 01634 890248

**Company Description**  
TIME are the UK authors of the innovative TRI-O Financial Management System designed for large corporate and public sector organisations. TRI-O offers true client/server, RDBMS independent applications providing a choice of Windows and/or Character based interfaces. In a unique Rules Based development environment.

**Hardware**  
All major open system suppliers

**Coverage**  
TIMES 1000

**Applications**  
TRI-O Financial Ledgers, Project Costing, Procurement/Commitment Accounting, and Asset Management

### 21 Minerva Industrial Systems plc

Bovis House, Lansdown Road,  
Cheltenham, Glos GL50 2JA  
Tel: 01242 242666 Fax: 01242 236107

**Company Description**  
minerva  
INDUSTRIAL SYSTEMS PLC

**Hardware**  
UNIX, Open systems  
GUI, CO, RDBMS, 4GL, 200+ platforms

**Geographical Coverage**  
Worldwide multi-lingual

**Applications**  
Integrated solutions for manufacturing industry MFG/PRO, Progress, Oracle.

### 22 International Business Systems

1 Imperial Place, Elstree Way  
Borehamwood, Herts WD6 1JN  
Tel: 0181 2076555 Fax: 0181 2076770

**Company Description**  
IBS is a wholly owned subsidiary of IBS AB, a Swedish public company and one of the leading software suppliers with over 3000 customers worldwide. The ASW Portfolio is a full range of application software with a GUI interface providing innovative solutions to today's business needs: including Pan European requirements and EuroVAT acting in a true Multi currency environment.

**Hardware**  
AS/400 Client Server, Windows and OS/2 GUI support.

**Coverage**  
65 Offices in over 30 countries worldwide.

**Applications**  
Financials, Distribution, Inventory, Asset, Service, Production, Manufacturing, Project, Warehouse Management, EIS and FMCG.

### 23 PeopleSoft UK Ltd

Aper Plaza, Reading,  
Berkshire RG1 1AX  
Tel: 01734 522 000 Fax: 01734 522 001

**Company Description**  
PeopleSoft develops and markets PeopleSoft Financials, PeopleSoft HRMS, PeopleSoft Distribution and People Tools, a powerful application development and customisation environment. PeopleSoft combines graphical user interface, relational database technology, and client/server architecture to deliver superior product functionality and technologically innovative applications, with the best customer service in the business.

**Hardware**  
IBM, Digital, Hewlett Packard, Data General, SUN, NCR.

**Coverage**  
Fortune 500 and Fortune 1000

**Applications**  
PeopleSoft Financials, PeopleSoft HRMS, PeopleSoft Distribution, PeopleSoft Manufacturing.

### 24 Pegasus Software Ltd

Orion House, Orion Way  
Kettering, Northants NN16 6PE  
Tel: 01536 495200 Fax: 01536 495201

**Company Description**  
A leading supplier of accounting solutions from the small business to medium sized companies requiring a tailored solution. Pegasus also supply integrated sales and marketing, manufacturing and EDI solutions linked to the financial core. Pegasus have solutions for the DOS, Windows or networking environment.

**Coverage**  
United Kingdom

**Applications**  
Accounting/Business

**Cost**  
From £500

### 25 McDonnell Information Systems

Boundary Way  
Hemel Hempstead, Herts HP2 7HU  
Tel: 01462 274051 Fax: 01462 274827

**Company Description**  
PRO-IV Financials combines high levels of functionality with ease of use. Its flexible and unique multi-dimensional coding structure accommodates any chart of accounts across both public and private sectors. The 'single ledger' design and 'super drill-down' facility provides instant access to information at all levels.

**Hardware**  
Compatible with most hardware, operating systems and databases.

**Coverage**  
MDIS offices throughout the UK and worldwide.

**Applications**  
Sales, Purchase, Nominal, Cashbook, Fixed Assets, SOR, POP and Stock.

**Cost**  
Price on Application.

### 26 CODA Group plc

Cardale Park, Beekwith Head Road  
Harrogate HG3 1RY  
Tel: 01423 509999 Fax: 01423 524636

**Company Description**  
The CODA Group develops, markets and supports high-functionality accounting software to national and multinational companies throughout the world. From 26 wholly owned offices, CODA supports over 1300 licences worldwide in medium to large organisations.

**Hardware**  
CODA Financials are available in various architectures specifically for the world's leading technical environment.

**Geographical Coverage**  
CODA has offices throughout The Americas, Asia/Pacific and Europe.

**Applications**  
All market sectors

**Cost**



## SOFTWARE AND IT SERVICES

<p><b>1 Asset Management</b></p> <p><b>2 Automated Data Capture</b></p> <p><b>3 Bar Code Label Printing Software</b></p> <p><b>4 Business Process Re-Engineering</b></p> <p><b>5 Computer Systems Integration</b></p>	<p><b>1 Harcat Systems (UK) Ltd</b> 4 High Street, Chobham Woking, Surrey GU24 8AA Tel: 01276 855555 Fax: 01276 855300</p> <p><b>Company Description</b> Harcat for Windows is designed to help medium and large corporations to track all their fixed assets, but particularly IT equipment.</p> <p><b>Hardware</b> Minimum 386DX PC with 8MB memory and VGA colour, running Microsoft Windows. Available as standalone or network. Client Server with ODBC available soon.</p> <p><b>Geographical Coverage</b> Harcat for Windows is sold and supported worldwide.</p> <p><b>Applications</b> Asset Management, Help Desk, Barcode Auditing, Purchase Ordering, Depreciation.</p>	<p><b>2 CIC Ltd</b> Portland House, London Road, Bagshot, Surrey GU19 5PG Tel: 01276 453105 Fax: 01276 453108</p> <p><b>Company Description</b> Automated data capture from hand written forms via ICROCR/OMR character recognition. Document processing, imaging, storage and retrieval. High traffic ISDN computer linked fax systems.</p> <p><b>Hardware Compatibility</b> PC/Win/Win 95NT.</p> <p><b>Geographical Coverage</b> UK &amp; Europe.</p> <p><b>Applications</b> Teleform ICR.</p>	<p><b>3 Professional Software Solutions Ltd</b> The Beeches, Church Harborough, Widney, Oxon OX9 8AB Tel: +44 1993 881584 Fax: +44 1993 883363</p> <p><b>Product Description</b> BSPwin is a Windows based Business Process modelling tool that has been used by organisations like NATO, Siemens, Citibank and BP Oil to define and optimise their business processes. BSPwin has analytic tools and activity based costing to help eliminate redundant or inefficient activities, reduce costs, and improve quality.</p> <p><b>Hardware</b> IBM AS/400, AS/36 and S/36</p> <p><b>Coverage</b> UK and Europe</p> <p><b>Applications</b> Manufacturing, Warehousing &amp; Distribution &amp; Retail</p> <p><b>Cost</b> From £2,500</p>	<p><b>4</b> Glen House, 200-208 Tottenham Court Rd, London W1P 9LA Tel: 0171 3234770 Fax: 0171 6319867</p> <p><b>Product Description</b> BSPwin is a Windows based Business Process modelling tool that has been used by organisations like NATO, Siemens, Citibank and BP Oil to define and optimise their business processes. BSPwin has analytic tools and activity based costing to help eliminate redundant or inefficient activities, reduce costs, and improve quality.</p> <p><b>Hardware</b> Intel 386, 486 or Pentium running Windows 3.x.</p> <p><b>Coverage</b> UK and Ireland</p> <p><b>Costs</b> £2085 list price</p>	<p><b>5</b> European Headquarters, Kingfisher House Frimley Business Park, Frimley, Camberley Surrey GU16 5SG Tel: +44(0)127608800 Fax: +44(0)127682250</p> <p><b>Company Description</b> Pacific is a computer systems integration company specialising in building and implementing bespoke software solutions across a variety of platforms and industries. We have particular skills in client/server development, workgroup computing, systems integration, networking, facilities management and automated operations.</p> <p><b>Hardware</b> AS/400 PC LANs UNIX</p> <p><b>Coverage</b> International</p>
<p><b>6 Database Query Tool</b></p> <p><b>7 Data Storage &amp; Retrieval</b></p> <p><b>9 Enterprise Applications</b></p> <p><b>10 Geographical Information Services</b></p>	<p><b>6 Xyratex</b> P O Box 6, Langstone Road Havant, Hampshire PO9 1SA Tel: 01705 443177 Fax: 01705 492228</p> <p><b>Product Description</b> XY-Query provides the fastest access to enterprise data and OLAP data. While the Query Builder hides complex SQL syntax from end users, power users can still write in native SQL. Data can be formatted into informative reports complete with breaks, calculations, different fonts and colours, or charted in different styles.</p> <p><b>Hardware</b> OS/2, Windows, AIX, ODBC</p> <p><b>Coverage</b> Worldwide</p> <p><b>Applications</b> £140 for single user, volume discounts available</p>	<p><b>7 Xyratex</b> P O Box 6, Langstone Road Havant, Hampshire PO9 1SA Tel: 01705 443177 Fax: 01705 492228</p> <p><b>Company Description</b> Xyratex is Europe's largest disk drive manufacturer offering a range of fault-tolerant storage subsystems and removable storage. Xyratex is a world leader in Serial Storage Architecture (SSA), devised as a higher performance interface compared with SCSI.</p> <p><b>Hardware</b> Independent storage specialist - PC networks/UNIX</p> <p><b>Coverage</b> Europe and USA</p> <p><b>Applications</b> Finance, Banking, Broadcasting, Photographic, Advertising, A/V, Defence, Central and local Governments, Police, Libraries &amp; Museums, Insurance &amp; Manufacturing</p>	<p><b>9</b> Alba House, The Mulberry Business Park Wokingham, Berks RG41 2GY Tel: 01754 771588 Fax: 01754 771709</p> <p><b>Company Description</b> Memory Technology are leading suppliers of Data Management products, data storage and services, offering consultations on network design requirements, data storage health checks and full range of storage products including tape hard disk, optical CD Rom and CD recording equipment, application software and network management.</p> <p><b>Hardware</b> DAT &amp; DLT Autoloader, DLT Optical Jukebox, CD Rom Jukebox, Parallel Port Interface, storage systems for Unix, AppleMac, Novell, Windows NT and OS/2</p> <p><b>Coverage</b> UK, Eire</p> <p><b>Applications</b> Any Data Management Areas.</p>	<p><b>9</b> Frimley Business Park Camberley, Surrey GU18 5SG Tel: 01276 682111 Fax: 01276 682135</p> <p><b>Company Description</b> With over 7,000 client implementations, SPGS Client/Server represents the world's largest installed base for a single enterprise-wide product line addressing integrated process and discrete manufacturing, supply chain management, and global financial applications.</p> <p><b>Hardware</b> As 400, RS 6000, HP9000, Digital Alpha.</p> <p><b>Coverage</b> Over 40 offices worldwide.</p>	<p><b>10</b> 14/15 Regent Parade, Harrogate North Yorkshire HG1 5AW Tel: 01423 590054 Fax: 01423 525545</p> <p><b>Company Description</b> Tactician UK are the master distributor for the Tactician range of desktop sales and marketing mapping software. With integrated client server technology and focused design for business applications, Tactician is the essential choice for corporate wide mapping.</p> <p><b>Hardware</b> Windows, Windows NT (Intel and Alpha), Macintosh</p> <p><b>Coverage</b> United Kingdom and Europe</p> <p><b>Applications</b> Retail, territory and demographic analysis</p> <p><b>Cost</b> From £1000</p>
<p><b>11 Helpdesk</b></p> <p><b>12 Helpdesk &amp; Support Systems</b></p> <p><b>13 Human Resources</b></p> <p><b>14 Image &amp; Workflow Solutions</b></p> <p><b>15 Internetworking</b></p>	<p><b>17 FMI Systems Limited</b> Greenetide-House, Station Road, East Grinstead, Sussex RH19 1UZ Tel: (01342) 326000 Fax: (01342) 326060</p> <p><b>Company Description</b> XY-Query provides the fastest access to enterprise data and OLAP data. While the Query Builder hides complex SQL syntax from end users, power users can still write in native SQL. Data can be formatted into informative reports complete with breaks, calculations, different fonts and colours, or charted in different styles.</p> <p><b>Hardware</b> HDE is a PC based software system. Prices start at £9,000.00</p> <p><b>Geographical Coverage</b> HDE is sold in UK, Europe and USA</p> <p><b>Applications</b> The management of Internal and External Help</p>	<p><b>17 WorkGroup Systems Limited</b> 10th Floor, Maple House Potters Bar, Hertfordshire EN6 6BS Tel: 01707 664456 Fax: 01707 661250</p> <p><b>Company Description</b> Questrel is the world's leading PC-based help desk and asset management system designed for the Windows environment. Questrel allows a variety of users to manage the entire customer support requirements of multi-site organisations. Questrel caters for all aspects of help desk management, including call logging, inventory, problem tracking, reporting and management of service level agreements.</p> <p><b>Hardware</b> Networked or standalone PC</p> <p><b>Geographical Coverage</b> UK, Europe, Israel, North America, Australasia, South Africa.</p> <p><b>Applications</b> MS/DOS, Windows and OS/2</p>	<p><b>13 Real Time Consultants Ltd</b> 118-120 Warwick Street, Leamington Spa Warwickshire CV32 4QY Tel: 01926 313133 Fax: 01926 422165</p> <p><b>Company Description</b> Real-Time Consultants is a leading supplier of specialist sub-contract human resources to the Financial, Telecommunications, Military, Electronics and Manufacturing industries. It has over 17,000 freelance staff with skills ranging from programmer to senior consultant in areas such as software development and systems engineering.</p> <p><b>Geographical Coverage</b> UK, Europe, Worldwide</p> <p><b>Applications</b> Real time and Technical</p>	<p><b>14</b> Grant Thornton House, 46 West Bar Banbury, Oxon OX18 9FZ Tel: 01295 251618 Fax: 01295 252243</p> <p><b>Company Description</b> We are a specialist supplier of Document Management solutions and services. Our skills have been gained through hands-on involvement in many successful Image and Workflow implementations in most industries.</p> <p>We believe that these systems should be integrated with business processes, providing departmental and enterprise solutions which deliver tangible benefits in mission critical areas.</p> <p>We offer consultancy in all areas of Document Management, together with complete turn-key solutions, providing the highest level of customer service.</p>	<p><b>15 Xyplex</b> 2 Manor Court, High Street Hammonds Worth, Middlesex UB7 0AQ Tel: 0181 7591633 Fax: 0181 7591638</p> <p><b>Company Description</b> Xyplex is a leading vendor of high performance networking systems that enable both local and remote users of computing equipment to exchange information and share resources. A full range of award winning Hubs, Switches, Routers, Integrated ISDN, Access servers and Management provides complete LAN-LAN and LAN-WAN connectivity.</p> <p><b>Hardware</b> Standards compliance including CE and ISO 9000.</p> <p><b>Coverage</b> Worldwide sales &amp; support, with full UK coverage.</p> <p><b>Applications</b> Internet access to Desktops.</p> <p><b>Costs</b> Price dependent on configuration.</p>
<p><b>16 IT Recruitment Services</b></p> <p><b>17 LAN Infrastructure</b></p> <p><b>18 LCD Projection</b></p> <p><b>19 Manufacturing &amp; Supply Chain Solutions</b></p> <p><b>20 Network Management</b></p>	<p><b>16 Elan</b> 93 Norman Street London W1P 4DS Tel: 0171 8301300 Fax: 0171 8301333</p> <p><b>Company Description</b> Established in 1987 Elan provides IT and communications recruitment services. Acknowledged as one of the City's leading suppliers with over 10,000 financial specialists registered, we have a real understanding of IT consultancy requirements.</p> <p><b>Hardware</b> All</p> <p><b>Coverage</b> Across the UK, Europe, Far East, USA</p> <p><b>Applications</b> All</p>	<p><b>17 Optical Data Systems UK Ltd</b> Unit 1, Ansel Court, Ansel Business Park, Fleet, Hampshire GU13 8UY Tel: (44)1252 812030 Fax: (44)1252 812031</p> <p><b>Company Description</b> ODS develops and manufactures intelligent hubs and related computer networking products which allow customers to create highly reliable, fault tolerant and scalable networks. This is particularly important in financial institutions and Desktop Room environments. ODS equipment is used in one of the largest FOREX trading rooms in the City. ODS products are differentiated by having superior network management capabilities, integration of 'best of breed' technologies in routing, switching and ATM. ODS has already installed the largest ATM network in the world.</p> <p><b>Hardware</b> ODS products are compliant with all internationally recognised ratified standards.</p> <p><b>Coverage</b> ODS UK covers mainland UK, including the Channel Islands, and Northern Europe, La, Benelux and Scandinavia.</p> <p><b>Applications</b> Local Area Networks, Wide Area Networks, Metropolitan Area Networks.</p>	<p><b>18 Infocus (UK) Limited</b> Unit 1, Syon Gate Way, Brentford Middlesex TW8 9DD Tel: 0500 213300 Fax: 0181 2132121</p> <p><b>Company Description</b> Infocus LCD projectors connect directly to PCs and display the PC images on any white surface from 2 ft to 20 ft square. 35mm slides are dead. Everyone has Powerpoint. Just create your presentation on your PC and present it to your audience, instantly, using an Infocus LCD projector. Call today. Project tomorrow. Ask for free trial.</p> <p><b>Hardware</b> PC, MAC and Workstations</p> <p><b>Coverage</b> Worldwide</p> <p><b>Applications</b> Anyone wishing to show their computer images to an audience of more than 3 people.</p>	<p><b>19</b> Canal Place Leeds LS12 2DU Tel: (0454) 010105 Fax: (01132) 342211</p> <p><b>Company Description</b> CSI are a leading IBM Business Associate specialising in applications for IBM AS/400, RS/6000 and Client/Server environments. Applications include BPCs for manufacturing and supply chain complexes, CIEL for logistics companies and the award winning customer services products (CSP). For free information pack, please call CSI Customer Service on (0454) 010105.</p> <p><b>Hardware</b> IBM AS/400, IBM RS/6000, PC &amp; client/server platforms</p> <p><b>Geographical Coverage</b> Offices supporting Europe, USA, S Africa and Australia.</p> <p><b>Applications</b> Manufacturing, Supply chain &amp; logistics.</p> <p><b>Costs</b> POA</p>	<p><b>20</b> Unit 1a, Falcon Business Park, Ivanhoe Road, Barnsley, Yorkshire S70 1AQ Tel: 01774 721161 Fax: 01774 721162 E-mail: sales@harrier.com WWW: http://www.harrier.com</p> <p><b>Company Description</b> Harrier Software distribute open networking software products designed to provide interoperability between dissimilar computer systems such as DEC VAX &amp; Alpha, PC DOS, Windows &amp; NT, UNIX and Novell Networks. The integration products that we supply and support utilise industry standard protocols such as TCP/IP, NFS and IPX/SPX, they include TGV's MultiNet, MultiWare, PhaseIP and SecureIP.</p> <p><b>Hardware</b> Harrier products link systems such as DEC VAX &amp; Alpha, PC DOS, Windows &amp; NT, UNIX and Novell Networks. Costs are available on request.</p> <p><b>Geographical Coverage</b> Harrier have offices in Berkshire and La Defense, Paris.</p> <p><b>Applications</b> Products allow dissemination of information from one proprietary system to another.</p>
<p><b>21 Network &amp; Software Solutions</b></p> <p><b>22 Printers</b></p> <p><b>23 IMS Development &amp; Testing</b></p> <p><b>24 Sales &amp; Marketing</b></p> <p><b>25 Sales &amp; Marketing</b></p>	<p><b>17 Xyratex IT Consultancy Group</b> P O Box 6, Langstone Road Havant, Hampshire PO9 1SA Tel: 01705 443177 Fax: 01705 492228</p> <p><b>Company Description</b> Xyratex IT Consultancy (a former division of IBM) provides network and software solutions to a broad range of industries. Consultants have multi-vendor skills providing technical consultancy, solutions development &amp; integration, project management and support.</p> <p><b>Hardware</b> Novell, IBM, UNIX, OS/2, Windows</p> <p><b>Coverage</b> UK</p> <p><b>Applications</b> Banking, Engineering, Retail, Defence</p>	<p><b>22 Mannesmann Tally Ltd</b> Molly Millers Lane, Wokingham, Berks RG41 2DT Tel: 01734 788711 Fax: 01734 791481</p> <p><b>Company Description</b> Mannesmann Tally is dedicated to the supply of computer printer solutions. With a proven reputation for quality and reliability the product range includes Line, Laser, Inkjet and Dot Matrix printers to meet all your printing needs, with the peace of mind of comprehensive after-sales support. Contact Mannesmann Tally to find out more.</p> <p><b>Coverage</b> UK, Africa, Middle East, Asia</p>	<p><b>23 FaxBack Limited</b> Fairfield House, 24 High Street, Great Beckham, Surrey KT22 4AG Tel: 01872 450335 Fax: 01872 450338</p> <p><b>Company Description</b> Automated fax response systems first developed at Intel. Callers from any telephone can proceed through a simple voice-prompts menu keying in numbers of documents requested plus their fax no. and the information is faxed immediately documents created from any Windows application. Can also transmit files. Call 24 hour hotline 01872 450335.</p> <p><b>Hardware</b> Software &amp; cards for typical 4 line EIS500 requires 485PC</p> <p><b>Geographical Coverage</b> Worldwide Blue Chip user list</p> <p><b>Applications</b> Unlimited brochures datasheets maps forms price lists etc.</p>	<p><b>24 Saratoga Systems</b> Coworth Park House, Coworth Park Ascot, Berkshire SL5 2EL</p> <p><b>Company Description</b> Saratoga Systems is a leading developer and supplier of account management and sales automation software across all industries. We offer solutions specific to each organisation's requirements, without time consuming programming, resulting in a very high ROI. With more than 500 customers worldwide, the package has proven itself to be a very cost effective solution.</p> <p><b>Hardware</b> PCs 86600S, 386/Windows, UNIX, IGM/MVS 6850 per user for 100+ users.</p> <p><b>Geographical Coverage</b> Worldwide multilingual</p> <p><b>Applications</b> Enterprise wide sales &amp; Marketing management, sales force automation.</p>	<p><b>25 Softa &amp; Co Ltd</b> 11 London Road, St Albans Herts. AL1 1LA Tel: 01727 863234 Fax: 01727 844154</p> <p><b>Company Description</b> As the leading sales &amp; marketing systems consultancy, SOFTA builds flexible software solutions based on proven, best practice methodologies. Services include: sales &amp; marketing &amp; business strategy consultancy &amp; systems integration project services. Our service portfolio ensures the fastest route to the delivery of identified business benefits.</p> <p><b>Hardware</b> PC Architecture, Microsoft Windows, Windows NT, Client Server Databases.</p> <p><b>Coverage</b> UK &amp; Europe</p> <p><b>Applications</b> Software components for all key sales &amp; marketing processes.</p>
<p><b>26 Sales &amp; Marketing Information</b></p> <p><b>27 Software Development</b></p> <p><b>28 Systems Management</b></p>	<p><b>26 Geoplan</b> 14/15 Regent Parade, Harrogate North Yorkshire HG1 5AW Tel: 01423 569538 Fax: 01423 525545</p> <p><b>Company Description</b> Geoplan in association with Royal Mail, are the only Forum for companies dedicated to the exploitation of postcode information for competitive advantage. From hardcopy paper maps to postcode marketing publications to digital data for analysis within a wide range of analytical software, Geoplan offer the products and services to assist in strategic and tactical business analysis.</p> <p><b>Hardware</b> N/A</p> <p><b>Geographical Coverage</b> United Kingdom</p> <p><b>Applications</b> Sales, Marketing</p>	<p><b>27 Software Developers Forum</b> Techs, Technologies &amp; Techniques 31 January - 1 February 1996 Olympia 2, London</p> <p>Aimed at users in both the corporate and commercial environments, Software Developers Forum offers a wide range of products, methodologies and services required for developing software systems. The event's innovative format combines a comprehensive programme of technical product demonstrations, live debates, a focused exhibition and the fiercely competitive 'Developers' Challenge' - a head-to-head battle between rival development teams and products to create a software programme for a charitable organisation.</p> <p>Entry to all elements of the event is free although there is a charge for all teams wishing to compete in the 'Developers' Challenge'. Call 0181 541 4885 to register free of charge.</p>	<p><b>28 Heroix Corporation Ltd</b> Yoomans Court, Ware Road, Hertford SG13 7HL, England Tel: +44 (0) 1992 500006 Fax: 01992 500065</p> <p><b>Company Description</b> Can you reduce the cost of managing your systems and provide users with better service and increased productivity levels? RoboMon can. This powerful software solution detects and automatically formulates the correct solutions to system problems. Heroix Corporation is a well established company with a proven history in system management services and solutions for VMS, UNIX-DEC, HP, IBM, SUN &amp; Windows NT.</p> <p><b>Geographical Coverage</b> Worldwide</p> <p><b>Users</b> Include 16 of the Times Top 30 Companies.</p>	<p><b>29</b> Needles House, Birmingham Road Studley, Warwickshire B80 7AS Tel: 01827 496444 Fax: 01827 496230</p> <p><b>Company Description</b> JBA System 21 Financials streamlines the processes of exception analysis, performance measurement, budgeting and forecasting. It also guides users through the maze of legal, accounting and taxation differences of the global marketplace. System 21 contains modules to cover every area of an organisation's financial operations, both now and into the 21st Century.</p> <p><b>Hardware</b> Multi platform</p> <p><b>Coverage</b> Worldwide</p> <p><b>Applications</b> Accounting, Customer Service, Distribution and Production, with specific software for the Drinks, Apparel, Plant, Tool and Equipment hire industries.</p>	
<p><b>29 Systems Integration &amp; Outsourcing</b></p> <p><b>30 Windows To Unix Integration</b></p> <p><b>31 Worldwide Manufacturing Solutions</b></p>	<p><b>29 SHL Systemhouse Limited</b> 137 Stamford Street London SE1 9AU Tel: 0171 9289800 Fax: 0171 9281296</p> <p><b>Company Description</b> 1. Client/Server Software Development Data Warehousing Object Orientation Web technologies 2. Desktop Services 3. Outsourcing Services Mainframe Processing Client/Server Operation Networked Systems Management (WAN/LAN) 4. Client/Server Education Classroom Multimedia</p> <p><b>Hardware</b> All distributed/open systems platforms</p> <p><b>Geographical Coverage</b> Offices across UK</p>	<p><b>30 SCO</b> Crosby Business Park Watford, WD1 8YN Tel: 01923 813644 Fax: 01923 813617</p> <p><b>Company Description</b> Bringing Microsoft Windows desktops and UNIX servers together into one manageable and integrated solution is SCO's business.</p> <p>First, SCO is the leading supplier of Business Critical Servers, delivering 1 in every 3 UNIX servers shipped in 1994 (Source: IDC 12/94).</p> <p>Second, SCO is the leading supplier provider of software that integrates Windows PCs with all major UNIX system vendors including DEC, HP, IBM and SUN.</p> <p>For additional corporate and product information see SCO's home page on the World Wide Web (<a href="http://www.sco.com">http://www.sco.com</a>), or alternatively, tick the SCO box on the coupon below.</p>	<p><b>31 JBA</b> Needles House, Birmingham Road Studley, Warwickshire B80 7AS Tel: 01827 496444 Fax: 01827 496230</p> <p><b>Company Description</b> JBA System 21 Financials streamlines the processes of exception analysis, performance measurement, budgeting and forecasting. It also guides users through the maze of legal, accounting and taxation differences of the global marketplace. System 21 contains modules to cover every area of an organisation's financial operations, both now and into the 21st Century.</p> <p><b>Hardware</b> Multi platform</p> <p><b>Coverage</b> Worldwide</p> <p><b>Applications</b> Accounting, Customer Service, Distribution and Production, with specific software for the Drinks, Apparel, Plant, Tool and Equipment hire industries.</p>	<p><b>17 Optical Data Systems UK Ltd</b></p> <p><b>18 Infocus (UK) Limited</b></p> <p><b>19 CSI</b></p> <p><b>20 Harrier Software Limited</b></p> <p><b>21 Xyratex IT Consultancy Group</b></p> <p><b>22 Mannesmann Tally Ltd</b></p> <p><b>23 FaxBack Limited</b></p> <p><b>24 Saratoga Systems</b></p> <p><b>25 Softa &amp; Co Ltd</b></p> <p><b>26 Geoplan</b></p> <p><b>27 Software Developers Forum</b></p> <p><b>28 Heroix Corporation Ltd</b></p> <p><b>29 SHL Systemhouse Limited</b></p> <p><b>30 SCO</b></p> <p><b>31 JBA</b></p>	

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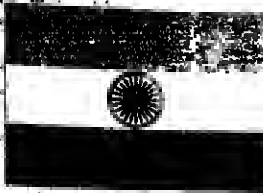
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## SPECIAL REPORT

This second section of the December 1995 issue of the FT-IT Review examines the phenomenal growth of India's software industry.

In less than a decade Indian software exports have grown more than 30-fold to reach Rs 15.4bn in 1994-95 making them one of the country's fastest growing and most important export sectors.



According to the National Association of Software and Service Companies, around 330 companies are involved in software exports from India. Together they employ about 14,000 technical people.

This report was written by Paul Taylor and Prabhu Gupta.

Editorial production: Michael Wiltshire  
Graphics: Ranjit Dhillon

# India's Software Industry

## Global competitor with turnover of \$1bn a year

India's top software companies offer technical competence, lower costs and prompt delivery, writes Paul Taylor

The emergence of India's software industry is remarkable success story - in both domestic and international terms. Today, India is the preferred choice for many western companies for outsourcing their software development projects.

Highlighting this, the industry grew by more than 50 per cent last year posting total turnover of about \$850m, according to India's National Association of Software and Service Companies. Add to this the value of in-house development of software and the figure rises to about \$1bn. Less than 10 years ago, the industry was worth a mere \$10m.

Mr P.C.Kolli, president of Nasscom and widely regarded as 'father' of the Indian software industry, having mapped out India's software development strategy in the early 1970s, says: "Indian software companies have the unique distinction of providing efficient software with cost and quality advantages, using state-of-the-art technologies. They have the strengths to handle large projects and, above all, the ability to deliver on time."

Most market analysts agree. "Professional software services are among the few areas in which India is globally competitive," says Tapan Mishra, an analyst with Bombay-based SSKI Securities. "Availability of a huge pool of low-cost technically qualified workforce, high quality levels and a time advantage with the US, position India to tap into the large international market for outsourced software services."

The emergence of India as an important force in the \$300bn global software industry has coincided with the switch from mainframe-based computing towards client-server computing based on desktop personal

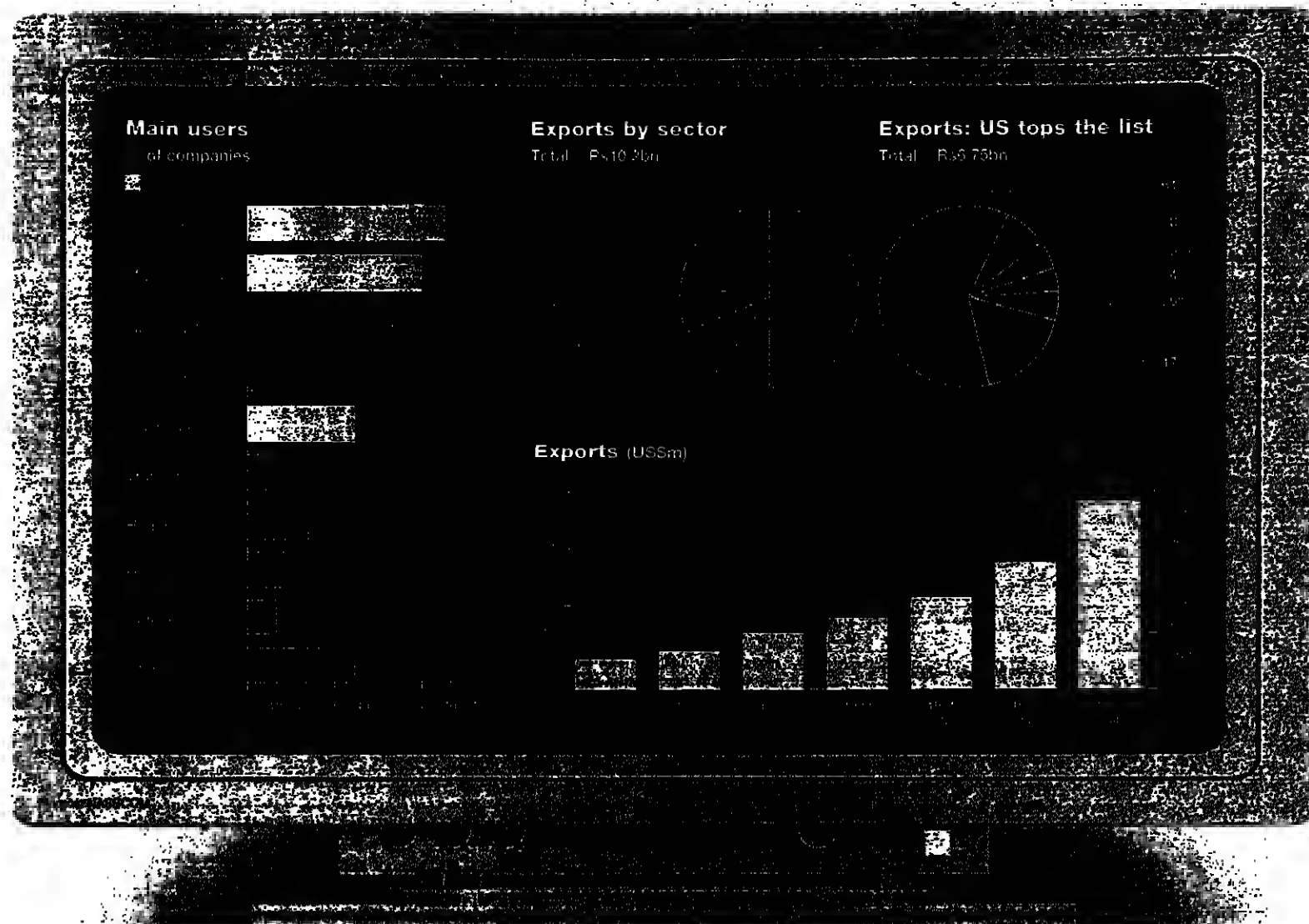
computers and inter-networking. This continuing move away from mainframes and proprietary operating systems ('downsizing') is forcing end-users to re-write, convert and upgrade their existing software to take advantage of new technologies, such as graphical user interfaces and object-oriented programming.

The size of the software re-engineering market alone is huge - three-quarters of US companies alone are planning to upgrade their software and up to 25 per cent of total IT spending is spent on this process. However, since the mid-1980s there has been a growing shortage of software engineers. This, coupled with the pronounced trend towards contracting-out or 'outsourcing' non-core operations among US and European corporations, has been one of the main driving forces behind the growth of the Indian industry.

India's key competitive advantage is the sheer size, technical competence and relatively low cost of its manpower base. With more than 1.4m software programmers, India has the second largest English-speaking scientific manpower pool after the US, and a sophisticated higher education system producing a steady stream of highly qualified graduates.

Salary differentials also make India very cost competitive, particularly in an industry such as software engineering where manpower costs account for more than 40 per cent of total costs.

While programmers in North America, western Europe and Japan earn roughly the same salary - about \$4,000 a month - Indian programmers are used to receiving about a fifth or eighth of this. Among those countries competing with India in the world software industry, only Chinese and Russian pro-



grammers come cheaper.

These advantages have helped India's software exports grow by 30 per cent a year in dollar terms to reach almost \$500m last year and helped attract the first of a string of foreign investments into the sector in the 1980s.

Today, a wide range of western companies - including Citicorp, Digital Equipment, Texas Instruments, Motorola, Siemens and Unisys - have Indian operations which serve as software engineering and production centres for their worldwide operations.

Continued on next page

## Indian software at work around the world

Commuters on the London Underground system probably do not realise it, but they have a Bombay-based computer company to thank when the trains run on time.

Meanwhile, anyone turning on a tap in the north-west of England can thank a team of Indian computer programmers who work for Delhi-based International Informatics Solutions for helping North West Water to run its operation more efficiently by developing a works management system. IIS, the first Indian

software house to achieve ISO 9000 quality certification, claims that North West Water saved 60 per cent of the cost of the project by outsourcing to India.

Elsewhere, passengers travelling on many international airlines, including American Airlines, Swissair and Singapore Airlines should thank Indian software companies for ensuring most aircraft leaves on time.

Millions of bank account holders across the globe including those with Citicorp,

Deutsche Bank, Hong Kong & Shanghai Bank and American Express rely on software developed by companies in Bangalore, Bombay and Delhi for the efficient services offered by these banks. When the World Bank wanted to train staff to use an electronic messaging system, Delhi-based NIIT developed a computer-based training product.

In the manufacturing sector, Fujitsu, General Motors, GE and IBM all use software developed in India to help them stay ahead of the compe-

dition. Bechtel France uses a distribution management application package designed and built by Infosys to integrate sales forecasting.

While North America and Europe are still asleep, programmers in Bangalore are maintaining software systems and fixing 'bugs' for financial services companies, using high speed satellite data links.

Even the Barcelona Olympics relied on Indian software engineers from Delhi-based 'Amsoft' who designed a system for TV graphics.

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## 2 India's software industry

FINANCIAL TIMES REPORT

■ Profile: Dewang Mehta of the National Association of Software and Services

By Paul Taylor

■ Prospects in a global market

## Mehta: a man with a mission

Dewang Mehta has one mission and one overriding passion in life. His mission, now largely complete, has been to turn India into a real force in the world software market. His passion, however, is film-making.

A qualified accountant, journalist and expert in computer graphics, Dewang Mehta, has achieved success and recognition in his two chosen fields - software and films, including winning a number of prestigious awards for his film-making.

As executive director of the New Delhi-based National Association of Software and Services Companies (Nasscom), he has overseen the phenomenal growth of an industry which today is worth about \$1bn a year.

Nasscom's membership, which includes most of the main multinational software developers as well as a wide range of local companies, has grown - from 72 in 1991, when he was asked to take over as executive director - to more than 320 today.

His skills as a highly effective lobbyist for the industry is reflected in his achievements which include negotiating income tax exemption for software exporters, and excise and sales tax exemption from a number of state governments. In addition, he persuaded the Finance Ministry to reduce the import duty on software from over 100 per cent to just 10 per cent - he still has his sights set on duty-free software imports. He was born in August 1962 and spent his early childhood in Umreth, a small village in Gujarat, the son of a pharmacist who worked for Schering, the German pharmaceuticals group.

"From the beginning I was fascinated by medicine," says Mr Mehta. "I met a lot of doctors and my only ambition was to become a doctor."

He almost did become a doctor. Mehta was a good student and in 1979 he passed the entrance exams for three medical colleges and chose the one with the best reputation - but had to leave the course after just two months when his school physics exam marks came out just below the quali-

ty level. "They told me I would have to leave and apply again the next year, but my ego at that age did not allow me to do that," he says. "I was a bit disappointed."

Instead, he decided to become a civil servant and switched his studies to History, Political Science and French at St. Xavier's University in Bombay. "My father was upset," recalls Mr Mehta. "He felt that a job as a civil servant was no good and that graduating with a Humanities degree was something only girls did."

As an only child, in Indian society the young Mehta was obliged to take account of his father's wishes. So he moved back to Delhi and qualified as a chartered accountant - gaining the second highest marks in India.

## Wide interests

But despite studying chartered accountancy he made it clear to his family that he was only doing it to please them - "I found the whole accountancy thing very boring," he admits. So, while at college he continued pursuing his two other great interests: journalism and film-making.

When he was just 16 one of his articles had been published as the 'middle' feature in the Times of India. "That gave me a break to work for a magazine called *Surya*, as a part time assistant editor," he says. His interest in film-making had also been triggered some years earlier when, during a return visit to his village, he had been introduced to Shyam, the Indian film director, who was making the film *Manthan*, locally.

In 1982, while he was still studying accountancy, he made his first film, a 20-minute documentary on Indian tourism, called *Glimpses of India*. "I shot and directed the film, because I didn't have much money to hire other people. Except for the music, I did everything and I still believe

that the only thing good in this movie was the music," he says, modestly.

The film, in fact, won an award at the Commonwealth Film Festival in Leeds in 1983. And while Mr Mehta was in England to collect the award he met "a couple of computer graphics buffs" who persuaded him the future of documentary film making and advertising would be in computer graphics, rather than conventional methods.

"I found that very interesting," he says. "I went to a couple of computer graphics studios on Wardour Street and got fascinated, although in those days one had to use Hewlett Packard mainframes and to render one frame."

He began a course in computer graphics but says: "Again my father was not in favour of it because he knew it would take me more towards advertisement film-making, so to make him feel happy I also did a course in cost and management accountancy."

He stayed in London for three-and-a-half years working as a cook with the Wingy's fast food chain earning £150 a week in the mornings and studying computer graphics at Imperial College and cost accountancy in the afternoons. By 1985, he had completed his studies and set up a small company doing work for Saatchi & Saatchi including commercials for both British Airways and the BBC.

Mr Mehta says he would have liked to stay in London, but his father had died in 1983 and his mother was ill and concerned that he might marry someone in London. So the young film-maker returned to Delhi in 1987 to look after her.

Back in India, he joined Orissa Cement which, at that time, wanted to diversify into computer graphics. However, the diversification plans were 'put on hold' when the economy slumped so, using his accountancy training, he became general manager of



Dewang Mehta: a highly effective lobbyist for the fast-growing Indian software industry

Orissa Cement at the age of 28.

"This was not to the liking of plenty of people who were twice my age there," says Mr Mehta, "but I think it was a wonderful two and a half years during which I computerised Orissa Cement and literally used all the skills I had gained as a chartered accountant."

"It was enjoyable, but it was keeping me away from my passion of graphics and film-making, so Orissa allowed me to make films on the side, so I made a film called *Wire* which was about cyberspace and networking through computer graphics."

The film won him another award, this time as computer graphics man of the year because of his work in ray tracing.

Encouraged by the success of *Wire*, he decided to re-establish his London-based computer graphics company. Meanwhile, Nasscom had been set up in Delhi and was, in Mr Mehta's words, "going through its early birth pangs of lack of credibility and funds."

The early Indian software industry pioneers turned to Mr Mehta to run Nasscom - "I said only on condition that I am able to continue my film-making and that there are no restrictions on me."

Today, he has his own film making and computer software company called Fractal Graph-

ics which aside from producing advertisements, is developing a 32-bit computer cricket game for Nintendo. Meanwhile, he continues to write for magazines and papers, acts as consulting editor to *PC Magazine India* and plans to launch an Indian edition of *Wired* magazine, next month.

As far as Nasscom is concerned, he says his contribution has been to bring a variety of different skills to the job. For example, he says his chartered accountancy background has helped with understanding all the legal issues involved in winning tax exemptions for the industry while his background in journalism has helped him put the industry's perspective across in newspapers.

Two years ago he launched a campaign to reduce the rampant software piracy in India. As part of this, he established the first anti-piracy hot line - something which has made him a target for threatening calls. He has also set up an annual conference and exhibition which has become the biggest software event in the Asia-Pacific area with more than 1,000 delegates attending the conference and 300,000 exhibition visitors.

As to the future, he says: "I always believe every person has their own capabilities and peaks. I am just reaching that peak, maybe in one or two more years." Then, he says, it will be time for someone else to take over at Nasscom.

## Campaigner

But he still has a few goals left: most recently he has led Nasscom's campaign against the tighter visa restrictions imposed on Indian software engineers by the US authorities. Demonstrating his acute political skills he has convinced companies doing business with India to lobby on his behalf because, he says, "the Clinton administration will listen more to them."

When he does finally step down from the Nasscom hot seat, he wants to become a Gujarat Member of Parliament. He has not finally decided which party platform he will adopt, but says may fight on the BJP ticket.

Although he does not agree with the BJP's religious stance, he says his political views are very right wing - "I believe in the extreme right wing. I do not believe in the middle path. I am totally anti-communist. I believe in a really free economy - I don't believe in protectionism... we are the only association in the country which has been asking for zero duty, everyone else wants protection. My feeling is that if my industry's products cannot compete globally, then there is no point - we should shut down."

Politics aside, his most burning ambition is to make a good commercial *Massala* film "within the next five years."

## Revenues of \$5bn by end of decade

Continued from previous page

Recent additions include Oracle, the database specialist, Novell and Siemens all of which have established large and rapidly-growing software engineering subsidiaries in Bangalore.

In the past, the rapid growth of the Indian software industry - and particularly exports in the form of both on-site and offshore services - has owed much to the country's cut-price labour, but most analysts agree that low costs are unlikely to provide a sustainable competitive advantage.

"Low costs help only in gaining entry into the US and European markets," says SSKI's Mr Mishra, "long-term competitive advantages will come from ensuring productivity and quality."

Inflation is already beginning to cut into India's cost advantage - both in terms of labour and other costs such as rentals. In Bangalore, India's 'Silicon Plateau', software engineers' wages are rising by 20 or 25 per cent a year, and in other software centres, such as Bombay, office rentals have already soared to New York or Tokyo levels.

Infrastructure problems, particularly congested streets, frequent power cuts and water shortages in software centres such as Bangalore, threaten to stall or curtail the industry's growth. Similarly, the existing 64kbps satellite data-links are barely sufficient to support the industry's requirements.

Unless these issues are addressed, the Indian software industry risks losing its lead to rival low-cost centers such as China and Hungary.

While most projects undertaken for overseas clients go to plan and are completed on time, there are inevitably some disasters - "the picture is not entirely rosy," says Mr Tim Catling, a management consulting firm with PA Consulting in London.

Minimising risks

He says there are real problems involving market volatility, legal difficulties, communication obstacles, supplier sophistication, skills mismatch and other issues, and achieving benefit is not always straightforward.

"The potential rewards are higher, but so are the risks which cannot be underestimated," Mr Catling says. In order to minimise these risks, PA Consulting offers a wide range of services and advice for its clients.

Similarly, specialist IT consultancies such as London-based SSKI Offshore works with an approved list of Indian partners to provide a wide range of offshore services while minimising management

## IT partnerships in India

World company	Partner in India
IBM	Tata (TSL)
DEC	DEQI
Compaq	FL, GSC, Unicom
Dell	PCL
Apple	Wipro
Unisys	Tata (TUL)
HP	HCL (HCL NP), HP (India)
Olivetti	Modi (MOD)
Fujitsu	NPS (Fujitsu NPS)
Citizens	TVSE
Sun	Wipro
Tandem	Wipro
Convex	Wipro
Epson	Wipro
Acer	Wipro
Sybase	NIT
Oracle	TCS

Source: Nasscom, 110017, New Delhi. Tel: 613 3588. Fax: 647 5755. Not affiliated with Dataquest Inc. the US research group.

and other risks. SSKI estimates that of the hundreds of Indian software companies, only about 35 are really capable of undertaking sophisticated offshore work, and only about 10 can demonstrate "significant" offshore development experience in a western environment.

One of the biggest problems facing inexperienced companies outsourcing to India, says Mr John Elton-Payne of SSKI, "is that Indian's like to say 'Yes' - even when they mean 'No'."

However, the Indian software industry itself is also attempting to address some of these issues. In particular, Nasscom and the leading companies have focused on improving quality levels.

About 16 Indian software companies have already achieved ISO9000 certification and another 50 are in the process of acquiring it. Highlighting the high quality standards that are achievable in India, Motorola's Bangalore software facility has obtained the US Software Engineering Institute's level 5 certification.

The leading Indian software companies are also investing

heavily in training, and in leading-edge programming skills such as computer aided software engineering, fourth generation languages, object orientated programming and graphical user interfaces.

More specifically, as the Indian software industry begins to mature, companies have begun to move up the software value chain, and in particular to provide more off-shore services and take the first tentative steps towards producing packaged products.

While many of the 700 Indian software companies still rely upon providing basic 'body shopping' services for clients, such as on-site programming, an increasing proportion of the industry's revenues are being derived from fixed-price turnkey projects which are undertaken in India.

Some of these projects involve hundreds of hours of programming code, underscoring the industry's technical and managerial strengths.

Among the large turnkey projects undertaken by Indian-based software companies, Tata Consultancy Services, developed a complete trading and settlement system for Switzerland, NIT, part of the HCL group, developed a computer-based training product for the World Bank and Infosys built a distribution package for Reebok. Already, a few of the more dynamic companies have moved on to the next stage - developing standardised software packages for the growing domestic and international markets - although this tends to be a riskier business and requires extensive marketing skills.

India is already a force to be reckoned with in the world software market, although there is still plenty of room for growth. If the emerging top tier can continue to climb the value-added ladder while addressing customers' outstanding concerns, Indian software developers will play an increasingly important role in one of the most dynamic global markets.

A recent Nasscom study suggested that the industry's revenues will reach \$5bn by the end of the century. Other independent observers have even suggested that India could emerge as the software development centre of the world in the 21st Century.

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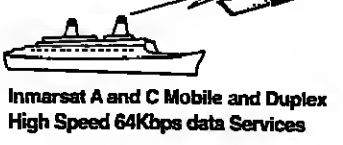
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## Investment in IT

# New appetite for information technology

India has a well-deserved reputation for world class scientific research and development in a number of fields, including information technology

India's long-established scientific record reflects a number of factors including strategic concerns, the country's strong education base with its bias towards maths and science, and the widespread use of the English language. As a result, India claims the second largest English-speaking scientific and technical manpower resources in the world.

However, the development of India's own technology infrastructure has been constrained in the past by state control of much of the domestic economy, bureaucracy and economic protectionism.

High-profile state-funded projects such as the Indian space programme and the C-DOT small telecoms switch, designed for rural exchanges, have only had mixed success. Similarly, India has been without an indigenous semiconductor fabrication capacity since the Semiconductor Company plant, at Chandigarh, turned down in 1988.

As a result, India's installed base of high technology products remains small by western standards. India, the world's largest democracy with a population of 900m, has one of the lowest concentrations of computers in the world - there are only about 1.2m personal computers in the country, and one of the world's poorest telephone networks, with only eight lines per 1,000 people. By comparison, China has 17 telephone lines per 1,000 people and Malaysia has 130.

## Liberalisation

Similarly, India's speeding on computer hardware and software as a proportion of gross domestic product, has lagged well behind international averages. Now, however, this is beginning to change.

Over the past three years, the liberalisation of the Indian economy has resulted in a wave of new foreign and domestic direct investment and a surge of interest and spending on computers and telecommunications equipment and services.

The new appetite for IT, particularly among India's increasingly affluent middle class, is evident in the growing sales of mostly imported multi-

media home computers, CD-Rom discs and packaged software as well as telecommunications products such as pagers and digital cellular telephones.

Meanwhile, there is a growing recognition in both the industrial and service sectors of the economy that investment in information and communications technologies is necessary if India is to compete in open, global markets.

The Indian IT industry's turnover grew by almost 60 per cent to around Rs88.4bn (\$2.2bn) over the past year, according to figures compiled by Computers and Communications, an industry magazine. Roughly 70 per cent of Indian IT spending is in the corporate sector.

The advance was led by domestic hardware sales which grew by 87 per cent to Rs23bn and domestic software sales which posted a 54 per cent increase to Rs10.7bn - outpacing software exports which grew by 51 per cent to Rs15.4bn for the first time.

Growth in domestic IT spending has been fuelled in part by a steady reduction in import tariffs on computers, peripherals, software and components as part of the liberalisation programme.

Import duties on computers have been cut from 65 per cent to 40 per cent while tariffs on software packages have been reduced from 55 per cent to 10 per cent. Further reductions are planned.

Aside from helping to generate the recent recent surge in both software and hardware sales, these tariff reductions are helping to eliminate illegal grey market imports and reduce software piracy.

This year, about 450,000 personal computers will be sold in India, up from 240,000 in 1994-95. However, within the next few years annual sales are expected to break through the million mark - "there is huge growth and tremendous opportunities in this market," says Mr Rajiv Nair, Microsoft's country manager.

Microsoft, which has established a distribution network involving three distributors and 700 outlets in the sub-continent, is among the US multinationals who have seized upon these new opportunities.



Satellite services: Anand Talsani, chief executive of Wipro IT, at the announcement of the joint venture between British Telecom and Wipro, a market leader in the provision of IT services - see report, this page. Previously, Mr Talsani, 41, headed the communications division of Wipro Infotech.

Most analysts believe that opening up of the domestic Indian markets and the sharp reduction in import tariffs over the past 18 months, will lead to market consolidation and the dominance of imported brands.

This trend is already apparent to some extent in the strong sales of computers from the world's leading vendors including Compaq Computer, IBM, Hewlett Packard, Digital Equipment, Apple and Silicon Graphics. Almost all the large multinational computer system vendors now have local sales and distribution operations, and in some cases, joint-venture manufacturing operations in India.

Similarly, in the telecommunications field, American Telephone and Telegraph, Motorola, Siemens, Philips and Alcatel have all established a strong domestic presence manufacturing switches, optical fibre cables, pagers and other equipment. Many of these multinational IT companies have also established offshore software engineering and chip design operations in India, particularly in Bangalore, Bombay and New Delhi.

But despite the influx of for-

eign multinationals, a handful of large domestic IT conglomerates with a wide range of business interests is also beginning to emerge.

These include HCL-HP, Per-tech Computers and Wipro Infotech. HCL HP, whose operations range from software services and training to hardware design and manufacturing, saw its turnover climb 71 per cent to Rs8bn in the year to June 30.

HCL HP, which has a technical collaboration agreement with Hewlett Packard of the US, has become the undisputed industry leader and is set to become the first domestic IT group to cross the Rs 10bn level in the next few years.

## Revenues

Reflecting consolidation within the sector, the five largest hardware vendors, HCL HP, Wipro, FCL, TISL - the fast-growing joint venture between International Business Machines and Tata Consultancy Services - and Fujitsu ICM, already account for almost 60 per cent of domestic hardware revenues. Collectively, the top five

posted a 63 per cent increase in turnover last year, according to India's *Dataquest* magazine which also notes that, "most of the 20 largest vendors of hardware and software made their big bucks bagging large orders from the government and corporate sectors."

Sales to the manufacturing sector, however, continued to account for a fifth of total revenues as India's leading entrepreneurs begin to use technology to transform the nation's ageing industrial infrastructure.

Many manufacturing industry leaders see technologies such as client-server computing helping them to compete in the newly deregulated domestic market.

In some instances, they are leap-frogging older technology to install highly sophisticated client-server and enterprise-wide computer networks using high performance hardware and satellite or microwave data communications.

Similarly, India's services sector, including the financial services industry, has begun to recognise the need to use IT to help modernise its antiquated and labour-intensive infra-

structure. The public sector banking system, now facing new competition from private sector banks, is beginning to introduce some automation, and a degree of competition has been introduced into public procurement.

Overall, the Indian services sector comprising banking, telecommunications, energy and other services, accounted for about 36 per cent of the revenues of the top 20 Indian IT groups.

Most leading domestic IT vendors have undergone significant restructuring operations in recent years, preparing themselves for a series of chal-

## Businesses turn to satellite solutions

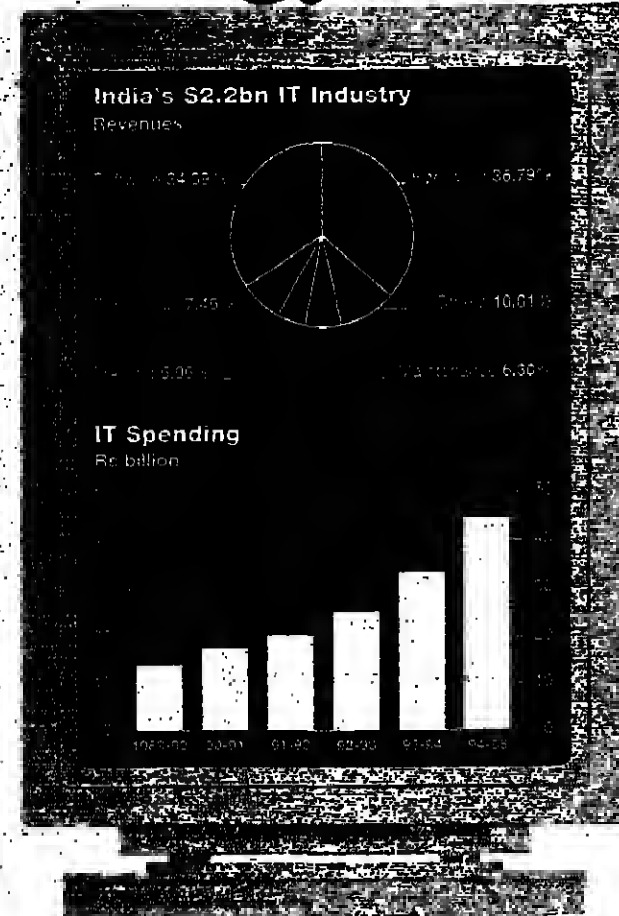
British Telecom, a leading supplier of global satellite communications solutions, has announced a joint venture with Wipro of India, a market leader in the provision of IT services, writes *Michael Williams*.

As the Indian economy continues to expand, the new Company, Wipro BT, will help fuel economic growth by pro-

viding businesses with VSAT (very small aperture terminals) and value-added network services, to provide much-needed connectivity across the sub-continent. India, the tenth largest industrialised nation in the world, has more than 100,000 medium-to-large businesses, Ian McKenzie, general manager of BT Global Satellite Services, says: "Due to poor

terrestrial infrastructure and the increasing requirement by companies for high-speed connectivity, the current opportunities for satellite solutions - such as VSAT services - are superb."

VSATs will be able to provide customers with fast and efficient communications between cities and more remote areas.



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## 4 India's software industry

## ■ Domestic software market

## 'Phenomenal' surge in sales

Further cut in import duty helps boost demand, especially in the financial sector

For many years the Indian domestic software market lagged behind the dynamic export sector - despite notching up a compounded annual growth rate of 31 per cent between 1988 and 1994.

But for the first time, the growth rate in the domestic market last year exceeded export growth. According to industry figures, domestic software sales - excluding software developed in-house - increased by 24 per cent to Rs 10.7bn in 1994/95, outpacing exports which grew by 30 per cent.

"There has been phenomenal growth in software," says Kunal Kashyap, a consultant with Arthur Andersen in Bangalore. The growth of the domestic market is an important sign of the IT sector's growing maturity, and is likely to be a positive factor for the industry's long-term performance.

There are a number of reasons behind the recent surge in domestic software sales, but undoubtedly the most impor-

tant has been the reduction in import duties on software.

In his March 1994 budget, Dr Manmohan Singh, finance minister, reduced import duty from 86 per cent to 65 per cent on systems software and from 85 per cent to 20 per cent on applications. In the latest budget, software import duty was cut further to a uniform 10 per cent.

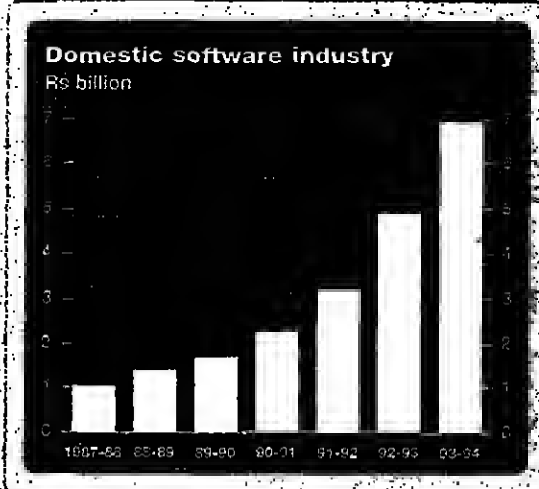
"Prices are now very competitive," says Rajiv Nair, Microsoft's country manager.

Coupled with increasing computer penetration - albeit from a low base - and tough new anti-piracy laws which were enacted in June last year, the impact was dramatic.

More than 100 new foreign software products were launched into the Indian market last year and imported software sales jumped by almost 160 per cent to a new high of Rs 2.75bn. The Indian software resellers were among the main beneficiaries of this bonanza.

Bangalore-based Wipro led the resellers' league with sales last year of Rs 457m and has emerged as perhaps the broad-based reseller representing companies ranging from Borland to CorelDraw.

Other top resellers included Onward Novell which sold Rs240m of software, consolidating its position by selling Novell's networking products and



Source: Dataquest Magazine, India

NIT, the leading company in the fast expanding IT training sector.

Microsoft's growing influence over the Indian domestic market was highlighted by the fourth and sixth rankings among the resellers of Sonata and Tata Unisys, two of the US software group's Indian distributors. However, domestic packaged software vendors also performed well with more than 90 new products launched and sales expanding by 83 per cent to Rs 1.33bn compared with a modest 12 per cent gain the previous year. Most of these products are targeted at niche areas rather than broad horizontal markets.

"Indian software companies are unlikely to become effective competitors against Microsoft in off-the-shelf software which is largely a marketing game, but they can be effective in large niche markets," says N R Narayana Murthy, chairman of Infosys.

Reflecting the increasing demands of India's corporate sector for state-of-the-art software, the main areas of growth were in the financial accounting market - "India is the largest Unix market in Asia," says Dr Yogendra Singh who is in charge of software develop-

ment for Tata Information Services. Among the companies with strong products in this area are Tata Consulting Services, the industry's largest software vendor which recently launched a Windows-based version of its E-X accounting package. Bangalore-based Peutronics, Citicorp Infotech and Infosys Technologies.

More generally, relational database management systems software sales grew by 90 per cent and overall sales of financial accounting packages rose by 170 per cent. Most of the leading RDBMS developers including Oracle, Ingres, Sybase and Informix have already established their own operations in India, or developed strong links with local partners.

Indian industry's increasing confidence in domestic developers was also evident in the growth of turnkey software products with revenues rising by 70 per cent from Rs 1.55bn to Rs 2.64bn last year. The leading turnkey software groups include CMC, ECI and TCS which, together with TISL, the IBM-TCS joint venture, and Oracle, won the contract to computerise the

Income Tax department.

This area is expected to remain buoyant as India's stock exchanges, banks and utilities turn increasingly to IT systems to improve efficiency and competitiveness. However, Som Mittal, managing director of Digital Equipment India, says: "The trend is towards standardised software rather than everyone trying to do their own software."

This is also reflected in the strong appetite for local customisation of standard software packages.

Despite being overshadowed by software exporters in the past, domestic software developers have begun to make an important contribution to the domestic economy. The National Association of Software and Service Companies (Nasscom) estimates that there are about 350 domestic software companies employing more than 32,000 technical people. Five years ago, there were just 10 domestic companies.

The potential for growth remains enormous - foreign and domestic software vendors have barely begun to scratch the surface of a market in which is estimated that there are 200m people with high spending power.

"Over the next five years the domestic industry will grow strongly," says Mr V Chandrasekaran, president of Wipro Systems. "buoyed by demand both for packaged software and services. Wipro itself has developed a strong position in networking and communications software."

Eventually, a strong domestic software market is probably also essential if India is to build upon its early software export success, and particularly if it is to make any impact with packaged products of its own in the global market.

As Edward Yourdon, the US software guru noted after visiting India in 1989: "To build a viable export industry, India must have a strong domestic computer industry as a foundation, computers must be part of every business, part of culture, part of social infrastructure."

The Indian domestic software industry seems determined to play its part.

## ■ International sales

## Indian exporters win confidence abroad

In less than a decade, Indian software exports have grown more than 30-fold to Rs 15.4bn in 1994-95, making them one of the country's fastest-growing and most important export sectors

A recent World Bank funded study concluded that, subject to a few corrective steps, including more emphasis on software products, India's software exports should top \$1bn within the next few years.

The study compared India with a sample of seven competing countries including Ireland, Israel, Singapore, Philippines, China, Hungary and Mexico. When companies were asked to rate their preference for providing software and services, India came top of the list.

Among the reasons cited were the cost and quality advantage of the Indian software industry. India's strong technical skills, particularly in leading edge technologies, and infrastructure considerations such as improved data communications facilities and the establishment of Software Technology Parks.

India's other attractions as a software development centre for multinationals include income tax exemptions and other government-sponsored incentives for software exporters, the full convertibility of the Rupee and the growth of the domestic market fuelled by economic liberalisation.

According to the National Association of Software and Service Companies, excluding one-man operations, about 330 companies are involved in software exports in India. Together, they employ about 14,000 technical people but vary dramatically in size and in structure.

Some, such as Tata Consultancy Services, the established leader in the Indian software industry, are indigenous companies, while others - such as Tata Unisys, Mahindra British Telecom and Bae/HAL - are joint ventures between domestic players and western companies.

qualified engineers and has 44 offices worldwide lifted its export earnings by 42 per cent to Rs 2.83bn.

Last year, TCS undertook several large projects including building a multi-million dollar securities clearing system for the Swiss Corporation for Securities Settlement (Sega) involving about 260 man-years of work, and a project for the UK's Sun Life Assurance which ranks as India's the largest off-shore project.

Other large exporters include, Bangalore-based Wipro (the combined Wipro Systems and Wipro Infotech businesses) which grew its exports by over 80 per cent last year. Tata Unisys, Pentafour Software & Exports and Silverline Industries.

Wipro has alliances with General Electric, Seagate, and Sun Microsystems amongst others and its Bangalore headquarters include secure development facilities for large over-

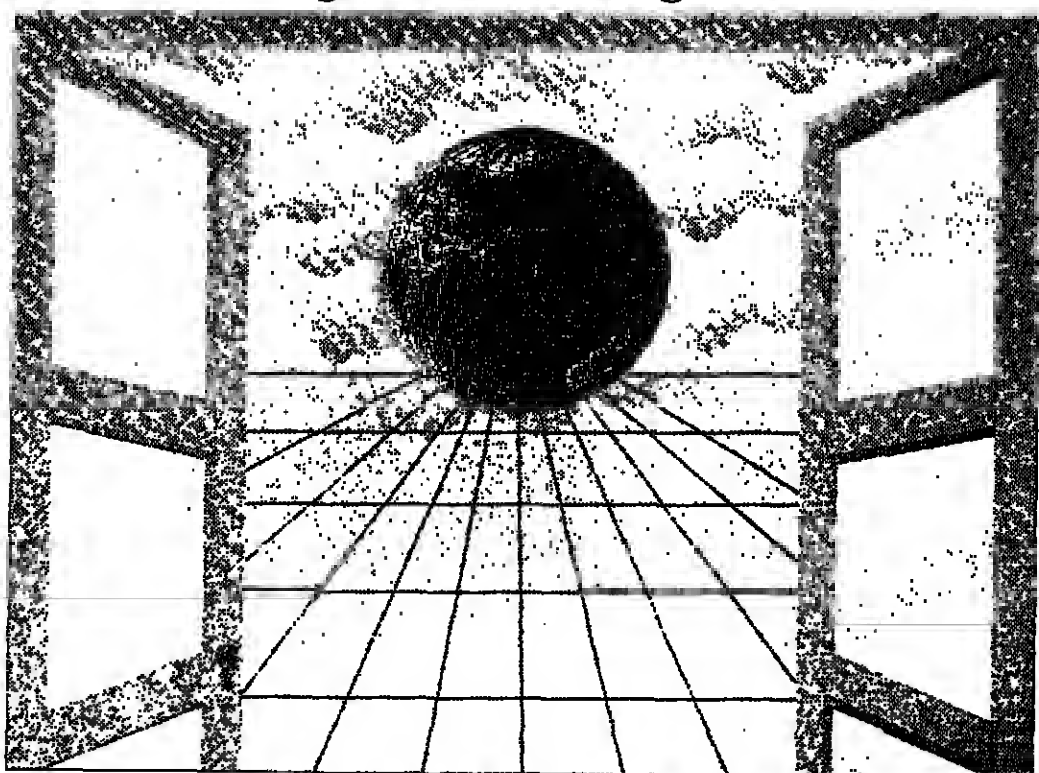
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## India's top 25 software exporters

Rank	Company	Value
1	Tata Consultancy Services, TCS	28,358
2	Wipro	8,561
3	Tata Unisys	8,250
4	Pentafour Software & Exports	5,483
5	Silverline Industries	5,142
6	Infosys Technologies	5,096
7	Fujitsu ICIM	4,514
8	DEIL	4,339
9	Square D Software	4,057
10	PCS (Comp. Division)	3,520
11	COSL	2,888
12	TISL	2,800
13	HCL HP	2,475
14	Siemens Information Systems	2,256
15	Mahindra British Telecom	2,240
16	NIT	2,315
17	IIS Infotech	1,660
18	CTL	2,042
19	LAT	2,000
20	Texas Instruments	1,972
21	Hughes Software Systems	1,860
22	Hexaware Infosystems	1,816
23	Mastek	1,783
24	CMC	1,421
25	PSI Data Systems	1,101

HCL Consulting Ltd., the holding company of HCL Group's overseas software operations, has reported a turnover of Rs 1,750m for the year. Data source: CSC Premier 200.

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# Strong shift to off-shore projects

Continued from previous page:

sets customers such as Xerox. Other fast-growing and innovative exporters include Infosys and Square D Software.

Since 1987-88, the Indian software export industry has grown at a compound annual growth rate of more than 46 per cent in local currency terms. Even in dollar terms, the CAGR has been more than 30 per cent, compared with a worldwide growth rate for the software industry of between 15 and 18 per cent.

Last year, software exports grew by 50 per cent and would probably have grown even faster had it not been for moves in the US to curb visa entry - a move that has been vigorously opposed by Nasscom and many US companies which have used Indian software services to help maintain their competitive positions.

The industry's growth figures do, however, mask some important changes in the structure of the export indus-

## Software exports: categories

Category	1994-95 (Rs)	Percentage of total	1993-94 (Rs)	Percentage of total
On-site services	8.0bn	82.74	4.8bn	48.94
On-site turnkey	1.2bn	8.14	1.6bn	16.08
Off-shore turnkey	4.4bn	28.74	3.0bn	30.06
Off-shore pack. dev.	1.5bn	10.24	87m	6.61
Other services	200m	0.13	31m	0.30
Totals	15.3bn	-	10.3bn	-

Source: Dataquest Magazine, D-74 Parthenon Centre, 110017, New Delhi

try. Historically, the bulk of India's software exports have either taken the form of exporting professional services - 'body shopping' in its crudest form - to work on a client's site, or providing low-cost data processing and data entry off-shore.

At the end of the 1980s, on-site development work accounted for as much as 95 per cent of Indian software exports - effectively, the India provided a pool of temporary labour for Silicon Valley when,

and if, required. However, there has been a marked shift in recent years towards 'offshore' project development. By last year, the percentage of on-site work had dropped to about 61 per cent.

This trend reflects several factors including a growing 'comfort level' among western companies in particular with outsourcing IT work to Indian software firms, and improved data links with India - by March of this year there were 124 high-speed leased data

lines providing 64Kbps links with overseas customers.

The shift towards offshore operations has a number of important repercussions for the industry. In particular, it has enabled Indian software exporters to gain experience and to begin to climb the value-added chain.

As Tapasjale Mishra, an industry analyst with Bombay-based SSRI Securities, noted in a recent report, typically software exports for a developing country like India move through four distinct phases:

■ Exporting cheap labour overseas. This enables companies to build credibility with potential clients, and while margins in exporting cheap programmers may be low by international standards, low manpower costs mean that Indian exporters can still achieve returns on capital employed of over 25 per cent.

■ Using cheap labour to provide 'bodyshop' services in the home country. This eliminates costly travel and helps build the local infrastructure. Satellite communications remove distance as an obstacle to doing business.

■ Building software products for export overseas. This is generally acknowledged to be where the real money is - however, successful products require good market understanding and hefty marketing expenses which often negate any salary advantages.

■ Building software products that take advantage of native expertise in an application area. This is the real value-added goal, but requires a sophisticated local industry, supported by advanced tools and technology.

Today, most Indian software exporters are probably at level two, but beginning to explore level three. Some of the more aggressive companies have begun to produce niche products for the global market.

The shift to off-shore development has also enabled Indian companies to remain competitive when bidding for overseas work against other

countries such as the Philippines, China and Hungary. It has led to a new surge of inward investment by multinational IT groups which have decided to set up their own 'captive' Indian operations to service their global software requirements.

## US customers

Significantly, the bulk of these new entrants are US-based companies like Oracle, Novell and Motorola. With a few notable exceptions, such as Siemens, European companies have been slower than their US counterparts to spot the opportunities in India - and they may now be too late. A number of initiatives have been taken to try and correct this imbalance. These include the establishment of a Bangalore-based company called 3SE by the European Commission and the Indian Government to promote cooperation between the EU and India in computer software.

Among its aims, 3SE hopes to help European product developers, software service providers and end users form strategic partnerships with Indian companies or establish fully owned or joint venture companies. For the moment, however, many European companies appear to be holding back.

Along with many other leading Indian software developers, Madras-based Square D Software has established overseas offices, including one in Europe. However, Square D notes that the growth evinced by the industry in India, "cannot be sustained forever."

"The cost advantages will continue, but are bound to reduce over time, stabilising towards the end of the decade," says the company. "The window of opportunity is therefore relatively short for windfall gains within this sector."

Put another way, "the train about to leave Platform One is getting crowded, much the same as any other train in India."

# Keeping up with technical advances

The challenge for Indian companies is to become producers of world-class software products

Advances in the software industry enable computer codes to be re-used. Other developments, such as voice recognition and object orientation, sharpen the big question: has the potential for the Indian software industry peaked?

In Bombay, Ashok Jain, managing director of Fujitsu-ICM - 34 per cent owned by ICL - observes: "India has focused on code-cutting and software development. This will not remain competitive because of the high salary inflation which is taking place. Compared to salary increases of as little as three to four per cent in some other parts of the world, India is seeing 15 to 20 per cent annual increases in salary."

But Mr V Mani of Mahindra BT points out that Indian companies make it a priority to invest in keeping up with technical advances and are structured to do so. For example, Mahindra BT recruits graduates in computer science or engineering, trains them in-house for three months, then puts them to work on projects under the supervision of senior people for six months before they are allowed to work on projects unsupervised.

Sixty per cent of the recruits are chosen to work on mainframes, 40 per cent on open systems. Two or three years later, they are given the opportunity of being cross-trained on other platforms, UNIX, object orientation, and so on. Though there is increasing use being made of distance-learning courses, the company has a policy of 15 days' training per

person each year. Some of this is provided by their own internal training department, some by external training agencies, and some by partner-companies in the west, such as TI.

Rod Perry of SI thinks that Indian software engineers are "quite capable of keeping up with industry developments". Though recent developments make it possible to re-use code, Perry feels that this will affect "only the balance of the kind of work done in-house versus that done offshore, rather than the fact of a growing volume of work being done offshore."

"Most of the systems in western countries are relatively simple, with scope for great flexibility, and this is some-

thing with which Indian engineers are well-placed to exploit". There is also a large amount of work to be done in relation to client/server systems, including code needing to be written in the C++ language to support large developments for large users migrating to object orientation.

Recent and future technological developments may well change the way we relate to Indian software suppliers, but future technological develop-

ments are unlikely to change the fact that we work with them, he says.

But, now that Indian prices are increasing steeply, will Perry be tempted to look around for suppliers from even cheaper countries?

"I think one key factor which will militate against my looking for software engineers from cheaper countries is that Indian parents seem to have encouraged their children to go into this field. It is perceived as a high-status area in which to be involved. So the cream of the output from schools competes to get into this area."

"This is not always so in other places. The quality of staff in India is therefore an enormous competitive advantage. Now if that changes as well as the price, then it is possible that I may look closer to home."

Perry feels that there is another important factor: "Before we took on our Indian sub-contractor, we asked for references from different parts of the world. Every one of them said that they had a particular way of working with sub-contractors - but their ways were all different from each other."

"This was, to me, a wonderful testimony to our supplier's ability to adapt to which ever way the foreign customer wanted to work with them. And they have certainly adapted to our way of working with them."

"I worked with them on a small development with another company and there, too, it was exactly the same experience. Not only is there excellent technical expertise, they get on well with others and fit in well. They don't rub anyone the wrong way or get into difficulties with politics."

Ha is confident that the Indian software industry grow

Continued on next page

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## 6 India's software industry



Offshore software projects: programmers in discussion at the Calcutta-based ADA software company, which among many overseas projects produced the payroll systems for Essex County Council in the UK, where ADA is represented by SSH Offshore. With another development centre at Trivandrum in the South Indian state of Kerala, ADA employs 150 software specialists on projects in seven countries.

## ■ Collaborative venture

Report by Prabhu Gupta

## Surprise in the bidding process

Indian software engineers bring cost-savings for a UK investment capital group

Rod Perry, head of information systems at 3i, the UK investment capital group, confesses that he initially invited an Indian software company to bid for work principally to concentrate the minds of local UK providers regarding cost. "Even though we knew that the standing of the Indian company was excellent and that using the Indian company was a viable option."

What happened in the bidding process was a surprise, he says - "we found that the Indian company had a better understanding of our needs and of what we wanted to achieve."

The Indian company also had "greater organisational depth - with 4,500 staff - so that we were persuaded that

they would be able to provide the extra resources, if they were needed, to ensure that our work was completed on time."

The result, says Mr Perry, was that "even though the price of the Indian company was better, it was not the major factor which swayed the decision in their favour."

Did they have any initial concerns about the abilities of the Indian software company?

"Yes, but it was in the rather technical area of screen design," explains Mr Perry. In response, he brought together some of his specialists in Rapid Application Development (RAD), plus the Indian software engineers, and found that the Indian programmers were able to further develop the RAD team's ideas "and quickly made an altogether excellent product" - so that the area he was most worried about turned out to be no problem at all.

Even though 3i found that

it had to change specifications, the Indian programmers coped well and still brought the project in on time and within budget.

The sub-contract for maintenance of 3i's bespoke software is therefore now divided between a UK company and the Indian company, which will have a small team based in the UK, once the 40 man-year project has been fully implemented.

Mr Perry describes the project as "a very advanced windows-based client-server system, at the leading edge of technology."

He had at least some prior experience with the Indian software company, but before handing over the project, he followed up references in various parts of the world and also went to India to meet the principal staff, 18 months or so ago. Mr Perry was impressed by their breadth of knowledge about new software techniques. So far, he is also pleased with the progress of the collaboration.

## ■ New developments

## TCS launches a new generation of software

Tata Consultancy Services employs more than 4,000 software specialists

Evidence of the competitive progress of the Indian software industry comes from the announcement from Tata Consultancy Services (TCS), of a new product, 'RTwo'.

This product "represents a new generation of software in relation to executive information systems," says Mr L.C. Singh, TCS's executive vice president (marketing).

The difference between executive information systems (EIS) and RTwo, according to Mr Singh, is that RTwo is designed for information seekers who wish to navigate voluminous databases and extract and analyse information from them, while EIS packages are designed for control purposes, not information sharing.

RTwo is a client-based system which runs on Windows workgroups, extracting information from anywhere in the world across networks and databases. Forty man-years of labour and Rs10m have been invested in developing the product.

In a new world "where hierarchies are disintegrating and organisations are getting flatter", Mr Singh feels that the need for control is being out-paced by the need for information-sharing. Among the features of the package will be "the ability to define the user's worlds of concern."

A user can define up to seven of these, and the systems monitors these "worlds" actively, warning the user if a world "goes critical". For example, an engineer can define "production" as his area of concern, and the software will warn him if production falls below a particular level.

## Data capture

Calling it "a pro-active information system", Mr Singh says, "RTwo captures 'hot data' and thus informs the user about events as they happen, so that decisions taken can affect the event, whereas EIS gives you 'post-mortem' analyses. It isn't necessary for every member of a company to have RTwo, or even a PC. Even a three-man organisation can use this software though, frankly, the fun is in the whole organisation is networked."

The product is being tested with 150 organisations worldwide and will be available off-the-shelf.

## Moves to 'future-proof' the industry

Continued from previous page

and prosper as it becomes better known - "Indian companies are already being used for more sophisticated and mission-critical work by UK financial institutions. There's no reason why India should not become the silicon-centre of the world."

Mr Jain believes that Indian software industry "will need to enhance development effort and move towards becoming partners in product

development."

The challenge is to become producers of world-class software, specifically of Intellectual Property-based products, he adds - "we are particularly targeting the retail banking and healthcare sectors, where we are looking to have revenue from royalties. In addition, there are areas such as systems software and networking software."

This upgrading "need not take terribly long - in the financial services sector, retail

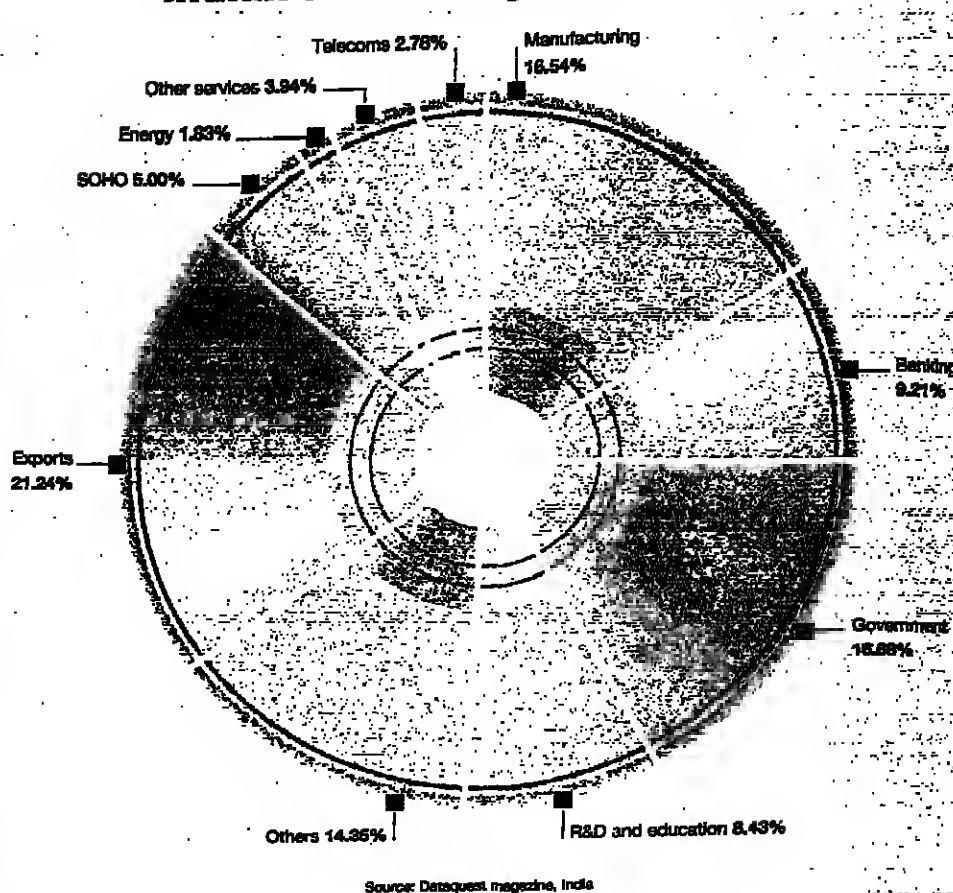
banking products are being beta-tested in India, which has already moved to digital trading. Joint ventures and strategic alliances have been set up which will bring stock exchange, mutual fund and brokerage packages to the market within the next two years or so.

"We must also keep in mind that, as a result of liberalisation, India has leapt two generations of technology in telecoms, from cross-bar exchanges to digital and cellu-

lar, whereas a lot of work will have to be done in countries such as the US, costing billions of dollars, to upgrade from existing technology to digital technology."

Jain also points out that work on artificial intelligence case tools is already being used in India - "work is also being done in on-line real-time translation from one language to another. Object-orientation has already been targeted by some companies as their next strategic step forward."

## Indian IT industry's customers



Tata Consultancy Services was formed in 1988 as part of the Tata group of companies. India's largest and best-known conglomerate, with a turnover of more than \$5bn.

In 1994-95, TCS itself had revenues of over \$112m, and offices throughout India and in 34 foreign locations, ranging from the US, to Europe, the Middle East, South Africa,

Japan, Asia-Pacific and Australia. TCS has more than 4,000 software professionals, at least 20 per cent of whom are engaged in the development of software tools and utilities.

Among the software joint ventures with TCS is Airline Software Services, launched three years ago by Mr Hans Kienle - the venture is 75 per cent owned by Swissair and 25

per cent by TCS.

"Our objective was not revenue or profits, but the reduction of costs," says Mr Kienle, chairman of the joint-venture. The objective has been "very successfully" achieved, comments Mr Kienle in Zurich. "We pay comfortable salaries in Bombay, the working conditions are pleasant, the motivation very high. We are, in fact, exceeding our target to reduce costs by 80 per cent."

When asked if there were any problems in achieving this ambitious target, Mr Kienle says: "All the financial estimates were correct, but the telecommunications were not as good as we first thought. It took some effort and cost, but we have sorted these problems out now."

Among the larger projects being handled by the joint-venture are software systems for cargo-handling, due for completion next year, and passenger systems, due in 1997.

Prabhu Gupta

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